AutoDome 700 Series IP PTZ Camera

VG5 700 Series

BOSCH

en User Manual

Table of Contents

1 Getting Started

Install and wire the AutoDome according to the *VG5 AutoDome Installation Manual*. A typical system includes an ethernet connection, a video management system, a monitor, and appropriate wiring connections. Please refer to the individual product manuals for complete installation and setup instructions for each of the system components.

1.1 Powering On

When you turn the AutoDome power on there is a ten (10) second pause before the dome starts its homing phase. During the homing phase the camera pans left and right and tilts up and down. It also adjusts the lens focus. The entire homing phase lasts approximately 40 seconds and ends with a firmware version screen.

Bosch Security Sys. AutoDome

700 Series	**5.00.00.03/1.05.00.02**
Day/Night 36X	**1.00.00.00**
SC Boot	**5.00.00.03**
FPGA	**1.13.01.05**
Lang. Table	**1.00.00.01**
VCA_boot	**1.02.00.01**
IP-Panel	**4.53.50.13**
IP Address	**192.169.0.0**
Subnet Mask	**255.255.248. 0**
No Heater	
FastAddress: Not Set	
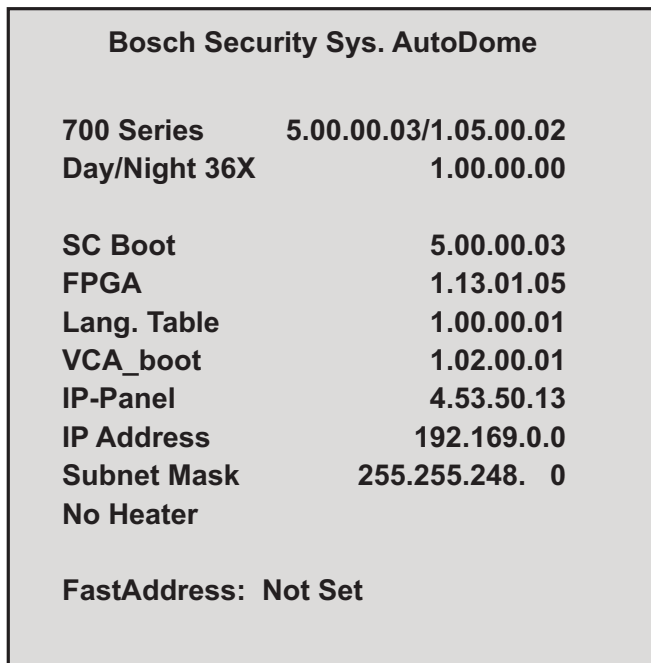
Figure 1.1 Sample VG5 Startup Firmware Version Screen

The splash screen displays the type of AutoDome, the camera installed, the firmware levels for various files, and the current IP address (for VG5 AutoDome 700 Series models).

1.2 Establishing AutoDome Control

The most common ways to interface with the AutoDome are:

– Using the Bosch IP Web interface included with VG5 AutoDome 700 Series models. Refer to *Section 2 Using the AutoDome 700 Series, page 6*.
– Using the Bosch Video Management System (VMS) or the Bosch Video Client.
– Using the Bosch Configuration Manager to configure camera settings.

2   Using the AutoDome 700 Series

The AutoDome 700 Series transmits PTZ control commands and images over a TCP/IP network. It also allows users to configure the camera display settings, camera operating settings, and to configure the network parameters.

The AutoDome 700 Series incorporates a network video server in the IP module. The primary function of the server is to encode video and control data for transmission over a TCP/IP network. With its H.264 encoding, it is ideally suited for IP communication and for remote access to digital video recorders and multiplexers. The use of existing networks means that integration with CCTV systems or local networks can be achieved quickly and easily. Video images from a single camera can be simultaneously received on several receivers.

2.1   Overview of Features

The AutoDome 700 Series includes the following functionality:

Function	Description
Video Encoding	The camera uses the H.264 compression standards and ensures that the data rate remains low even with high image quality and can also be adapted to local conditions within wide limits.
Streaming	Encodes multiple data streams simultaneously according to individually customized profiles. This feature creates data streams that can serve different purposes. For example, one (1) data stream for recording and one (1) data stream optimized for transmission over the Local Area Network (LAN).
Multicast	Enables simultaneous, real-time transmission to multiple receivers. The network must implement the UDP and IGMP V2 protocols as a prerequisite for Multicasting.
Configuration	Allows configuration for all camera settings from a Web browser on the local network (Intranet) or on the Internet. You can also update the firmware, load device configurations, store configuration settings, and copy these settings from one camera to another.
Snapshots	Allows you to take and store individual video frames as JPEG images from the Web browser interface.
Record	Allows configuration for the recording options of the IP module. You can record video from the Livepage to a hard drive.

2.2   System Requirements

The AutoDome 700 Series requires specific software and hardware to allow a user to view live images and to configure camera settings over a TCP/IP network. These requirements are:
– A computer with the Microsoft Windows XP, Vista, or Windows 7 operating system, network access, and the Microsoft Internet Explorer Web browser version 7.0 or later, or
– A computer with Microsoft Windows XP, Vista, or Windows 7 operating system, network access, and reception software such as the Bosch Video Management System or the Bosch Video Client, or

NOTICE!

The Web browser must be configured to enable Cookies to be set from the IP address of the unit.

In Windows Vista, deactivate protected mode on the Security tab under Internet Options.

You can find notes on using Microsoft Internet Explorer in the online Help in Internet Explorer.

If you choose to use a computer running Microsoft Internet Explorer or any of the Bosch software, the computer must conform to the following minimum requirements:

– Operating System: Windows XP (Service Pack 3) or Windows 7 (32 or 64 bits)
– Processor: Intel Pentium Quad Core, 3.0 GHz or comparable
– RAM: 2048 MB
– Free Hard Disk Space: 10 GB
– Video system: NVIDIA GeForce 8600 or higher display with a minimum of 16-bit color
– Network interface: 100/1000-BaseT
– Software:
  – Microsoft Internet Explorer, version 7.0 or higher
  – Bosch Video Client (BVC)
  – DirectX 9.0c
  – MPEG ActiveX utility
  – Sun Java Virtual Machine

For the latest versions of the Bosch Video Client, DirectX, ActiveX, and the Sun Java Virtual Machine software, go to *www.boschsecurity.com*, then navigate to the AutoDome 700 Series product page and download the software from the Software tab.

> ⓘ **NOTICE!**
> Ensure the graphics card is set to 16-bit or 32-bit color. If you need further assistance, contact your PC system administrator.

2.3 Connecting the AutoDome 700 Series to the PC

1. Install the AutoDome 700 Series according to the instructions in the *VG5 AutoDome Installation* manual.
2. Connect an Ethernet cable from the AutoDome 700 Series RJ45 connector to a dedicated network switch to bypass the Local Area Network (LAN).
3. Connect the dedicated network switch to the RJ45 connector on the PC (see option A below).

> ⓘ **NOTICE!**
> The AutoDome 700 Series can also be connected directly to a PC using an Ethernet crossover cable with RJ45 connectors (see option B below).
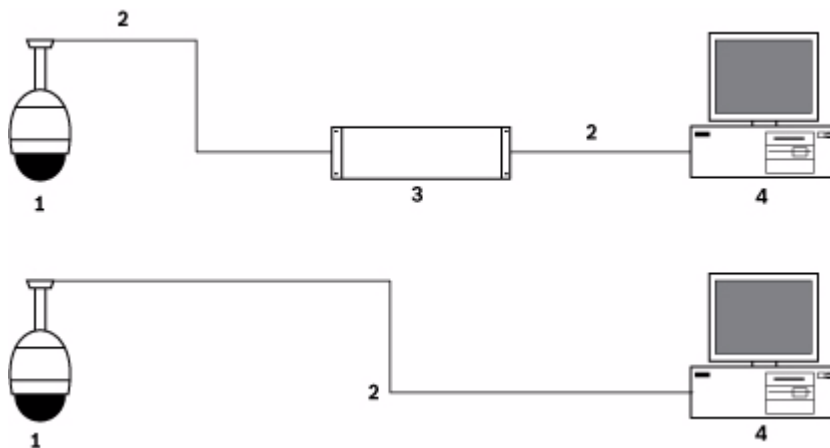
Figure 2.1 AutoDome 700 Series System Configuration

1	AutoDome 700 Series
2	IP Connection
3	Network Switch
4	Computer

NOTICE!
You can also use the Bosch Video Client utility to configure the network settings for an AutoDome 700 Series camera. Go to *www.boschsecurity.com* to download the Configuration Manager software and Operating Manual.

2.4   Configuring the AutoDome 700 Series Camera

To operate the camera in your network you must assign it a valid network IP address. The default IP address is 192.168.0.1, but you may have to change this address if it conflicts with another device on your network. Refer to *Section 4.3 Basic Mode: Network, page 20* for more information.

To properly configure the camera for your network, you need the following information:

–   Unit IP address: An identifier for the camera on a TCP/IP network. For example, 140.10.2.110 is a valid syntax for an IP address.
–   Subnet mask: A mask used to determine what subnet an IP address belongs to.
–   Gateway IP address: A node on a network that serves as an entrance to another network.
–   Port: An endpoint to a logical connection in TCP/IP and UDP networks. The port number identifies the use of the port for use through a firewall connection.

NOTICE!
Ensure that the network parameters of your cameras are available before you begin configuration.

The AutoDome 700 Series defaults are as follows:

–   IP Address: 192.168.0.1
–   Subnet Mask: 255.255.255.0
–   Gateway IP Address: 0.0.0.0

The following sections provide instructions about installing the software necessary to view images over an IP connection, configuring the IP network settings and accessing the AutoDome 700 Series images from a Web browser.

2.4.1   Changing the Network Settings

The AutoDome 700 Series has a default IP address of 192.168.0.1. To change the IP address or any network settings, you can use the Configuration Manager software or the AutoDome 700 Series server.

NOTICE!
Contact your local network administrator for a valid IP address, Subnet Mask, and a Gateway IP Address.

Using the Configuration Manager
Configuration Manager is an optional network utility provided on the Bosch Security Systems Web site. Use the Configuration Manager Manual to make any configuration changes.

NOTICE!
Depending on the PC network security settings, the user may have to add the new IP address to the browser's **trusted sites** list for the IP AutoDome controls to operate.

Using the AutoDome 700 Series Web Server

To configure the camera using the AutoDome 700 Series server, do the following:

1. Set the IP address on the PC to `192.168.0.10` to ensure that the PC and the AutoDome 700 Series are on the same Subnet.
2. Launch Microsoft Internet Explorer and navigate to the following URL: http://192.168.0.1 The Web browser opens the Livepage for the AutoDome 700 Series; a security warning message is displayed.
3. Check the `Always Trust` box, then click `YES`.
4. Click the Settings link, located at the top of the Livepage.
5. Click the Service Settings link, located in the left pane of the Settings window.
6. Click the Network link to open the Network Settings page.

Figure 2.2   Network Settings Page

7. Configure the settings on this page based on the addresses provided by your local network administrator.

> **NOTICE!**
> Click the **Help on this page?** link if you need more information.

8. Click the Set button to save the settings.
9. Launch another instance of Microsoft Internet Explorer.
10. Type the original IP address followed by /reset (for example, http://192.168.0.1/reset) in the address bar and click Go to restart the AutoDome 700 Series. Once you restart the AutoDome 700 Series, use the new IP Address to access the Livepage.
11. Disconnect the AutoDome 700 Series Ethernet cable from the dedicated network switch and reconnect the Ethernet cable to the local area network (LAN).

2.5   The Livepage

Once the connection is established, the Web browser displays the **Livepage**. It shows the live video image on the right of the browser window. Depending on the configuration, various text overlays may be visible on the live video image.

Other information may be shown next to live video image on the **Livepage.** The display depends on the settings on the **Livepage Configuration** page (see the AutoDome 700 Series online help).

Display Stamping

Various overlays or "stamps" in the video image provide important status information. The overlays provide the following information:

Decoding error. The frame might show artefacts due to decoding errors. If subsequent frames reference this corrupted frame, they might also show decoding errors as well but won't be marked with the "decoding error" icon.

Alarm flag set on media item

Communication error. Any kind of communication error is visualized by this icon. Cause can be a connection failure to the storage medium, a protocol violation with a sub component or simply a timeout. An automatic reconnection procedure is started in the background in order to recover from this error.

Gap; no video recorded

Watermarking not valid

Watermarking flag set on media item

Motion flag set on media item

Discovery of storage not completed. If the information about recorded video is not cached, a discovery procedure is started in order find all recorded video. During this time, the "discovery" symbol is shown. While discovery is executed, gaps might be shown in places which the discovery has not yet reached. The gap will automatically be replaced by the true video, as soon as the correct information is available.

Maximum Number of Connections

If you do not connect, the unit may have reached its maximum number of connections. Depending on the unit and network configuration, each AutoDome 700 Series can have up to 25 Web browser connections or up to 50 connections via the Bosch Video Management System.

Protected AutoDome 700 Series
If the AutoDome 700 Series is password protected against unauthorized access, the Web browser displays a corresponding message and prompts you to enter the password when you attempt to access protected areas.

> **NOTICE!**
> An AutoDome 700 Series offers the option to limit the extent of access using various authorization levels (see the AutoDome 700 Series online help).

1. Enter the user name and associated password in the corresponding text fields.
2. Click **OK**. If the password is entered correctly, the Web browser displays the page that was called up.

Protected Network
If a RADIUS server is employed in the network for managing access rights (802.1x authentication), the AutoDome 700 Series must be configured accordingly, otherwise no communication is possible.

Image Selection
You can view the image of the camera in different displays.
▶   Click one of the tabs **Stream 1**, **Stream 2**, or **M-JPEG** below the video image to toggle between the different displays of the camera image.

View Control
The View Control tab allows you to control camera functions (pan, tilt, zoom, focus, and iris), navigate through on-screen menus and to view preset shots.
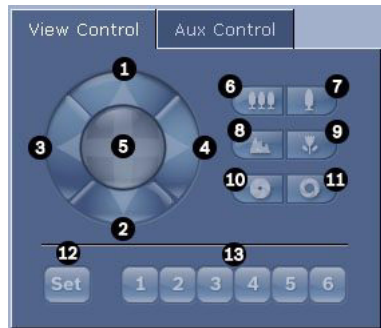
Reference #	Description	Reference #	Description
1	Tilts the camera up	8	Focus far[2]
2	Tilts the camera down	9	Focus near[2]
3	Pans the camera to the left	10	Iris close[2]
4	Pans the camera to the right	11	Iris open[2]
5	Pans and tilts the camera in all directions	12	Sets the pre-set shot for the corresponding button 1, 2, 3, 4, 5 or 6
6	Zoom out[1]	13	Moves the camera to pre-set shot numbers 1, 2, 3, 4, 5, and 6
7	Zoom in[1]		

1. This function is also accessible by using the mouse scroll wheel while in the Live video frame.

2. This button is also used as the "Enter" button to select menu items from the AUX tab.

1. To control a peripheral, click the appropriate controls.
2. Move the mouse cursor over the video image. Additional options for controlling peripherals are displayed with the mouse cursor.
3. To manually pan throughout the image area, move your cursor over any part of the live video. The image area displays a directional arrow (←→↑↓↖↗↙↘), then click and hold the right mouse key to pan the camera.

Digital I/O

The alarm icon is for information purposes and indicates the status of an alarm input: When an alarm is triggered, the icon lights up blue. The device's configuration determines whether the alarm is displayed, as well as additional details (see the AutoDome 700 Series online help).

Triggering Relay

You can switch connected units using the relays in the AutoDome 700 Series (for example lights or door openers).

▶   To activate this, click the icon for the relay next to the video image. The icon will be red when the relay is activated.

System Log / Event Log
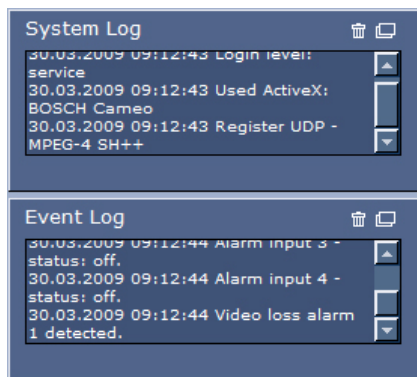
The **System Log** field contains information about the operating status of the AutoDome 700 Series and the connection. You can save these messages automatically in a file (see the AutoDome online help).

Events such as the triggering or end of alarms are shown in the **Event Log** field. You can save these messages automatically in a file (see the AutoDome online help).

1. If you want to delete the entries, click the delete icon in the top right-hand corner of the relevant field.
2. If you want to view a detailed log, click the icon in the top right-hand corner of the relevant field. A new window will open.

2.5.1 Entering a Keyboard Control Command

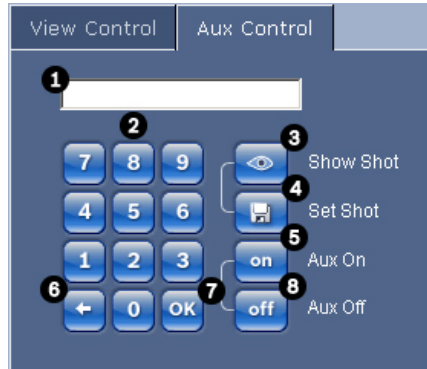The Aux Control tab is used to enter keyboard control commands. These commands are composed of a command number plus the appropriate function key (Show Shot, Set Shot Aux On or Aux Off). A valid combination either issues a command to the camera or displays an on-screen menu.

Aux Control Tab

The Aux Control tab is used to enter pre-programmed keyboard control commands.

See *Section 6 User Command Table, page 64*, for a list of all commands.

To access the Aux Control tab, navigate to the Livepage and click the Aux Control tab (see *Figure 2.3* below).

Figure 2.3 Aux Control Tab

1	Command number field
2	Keypad (numbers 0-9)
3	Show a preset shot
4	Set a preset shot
5	Initiates a command
6	Deletes a number in the Command Number field
7	Used to select a menu item
8	Stops a command

To Enter a Keyboard Control Command:

1. Place the cursor in the Command Number field.
2. Click the desired command number via the on-screen keypad.
3. Click either the Aux On or the Aux Off button to initiate or stop the command.
4. If the command initiates a menu, use the Up/Down arrows on the View Control to navigate the menu. Click the Focus or Iris button to select a menu item.

To Set a Preset Shot:

Preset shots (or scenes) are camera positions that are saved in memory for future use.

1. Move your cursor over the live image and wait for the area to display a directional arrow.
2. Click and hold a mouse button to pan to the desired position you want to save.
3. Click any number combination from 1-99 from the on-screen keypad to identify the scene number.
4. Click the Set Shot button. The image area displays a message that indicates which shot number was saved.

To View a Preset Shot:

1. Click the number of the scene you want to view using the on-screen keypad.
2. Click the Show Shot button.

NOTICE!

For more information about the AutoDome 700 Series settings and controls, click the **Help on this page?** link to open the AutoDome 700 Series online help.

2.6   Saving Snapshots

You can save individual images from the video sequence currently shown on the **Livepage** in JPEG format on your computer's hard drive. The icon for recording single images is only visible if the unit is configured to enable this process.

▶   Click the icon. The storage location depends on the configuration of the AutoDome 700 Series.

2.7   Recording Video Sequences

You can save sections of the video sequence currently shown on the **Livepage** on your computer's hard drive. The icon for recording video sequences is only visible if the unit is configured to enable this process.

1.   Click the icon to start recording. The storage location depends on the configuration of the AutoDome 700 Series. A red dot in the icon indicates that recording is in progress.

2.   Click the icon again to stop recording.
3.   To change the storage location for the recorded video, navigate to the Livepage settings on the Settings page.

Image Resolution

Sequences are saved at the resolution that has been preset in the configuration for the encoder (see *Section 4.3 Basic Mode: Network, page 20*).

2.8   Processor Load

If the AutoDome 700 Series is accessed via the Web browser, you will see the processor load indicator in the top left of the window next to the manufacturer's logo.
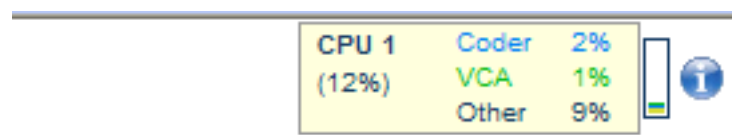
You can obtain additional information to help when you troubleshoot or fine-tune the unit. The values indicate the proportions of the individual functions on the encoder load, shown as percentages.

▶   Move the cursor over the graphic indicator. Some additional numerical values are also displayed.

3   VG5 Audio Connections

The audio version of the AutoDome 700 Series has one audio input for line signals. The audio signals are transmitted one-way and in-sync with the video signals. As a result, a door intercom system can be connected at the camera location.

> **NOTICE!**
> The line ports of the intercom should be used for transmitting audio signals on the intercom systems.

3.1   Audio Line Input Specifications

The following Line In specifications should be complied with in all cases:
– 5.5 Vpp max. Input voltage Impedance 9 Kohm, typical
– Sampling rate 8 KHz, 16 Bit, mono

> **NOTICE!**
> There is an internal gain level adjustment in case the signal level is too low.

3.1.1   Wire Specifications

Long distances are more susceptible to introducing noise into the signal.

Wire Type: Coax wire, AWG is dependant on the connector style selected
Maximum Distance: Depends on the signal level

3.1.2   Connections

The Audio Input must be connected to the Biphase Input as follows:
1. Remove the 110 Ω Biphase termination resistor.
2. Connect an audio source with line level to the Biphase input of the VG5 as shown in the chart below:

Contact	Description
Biphase +	Audio In
Biphase -	Ground

3.1.3 Activating Audio Reception

To configure audio via the Web browser, do the following:

1. Open the AutoDome 700 Series Livepage, then click the Settings tab.
2. Click the Camera Settings link from the left pane, then click Miscellaneous. The AutoDome 700 Series displays the Audio settings.
3. Click the Audio radio button to activate audio over IP.

NOTICE!

The audio signal is sent in a separate data stream parallel to the video data, and so increases the network load. The audio data is encoded according to G.711 or L16 and requires an additional bandwidth of approximately 80 Kbit/s for each connection.

Figure 3.1 Configuring Audio Settings

3.1.4   **Enabling Audio Transmission**

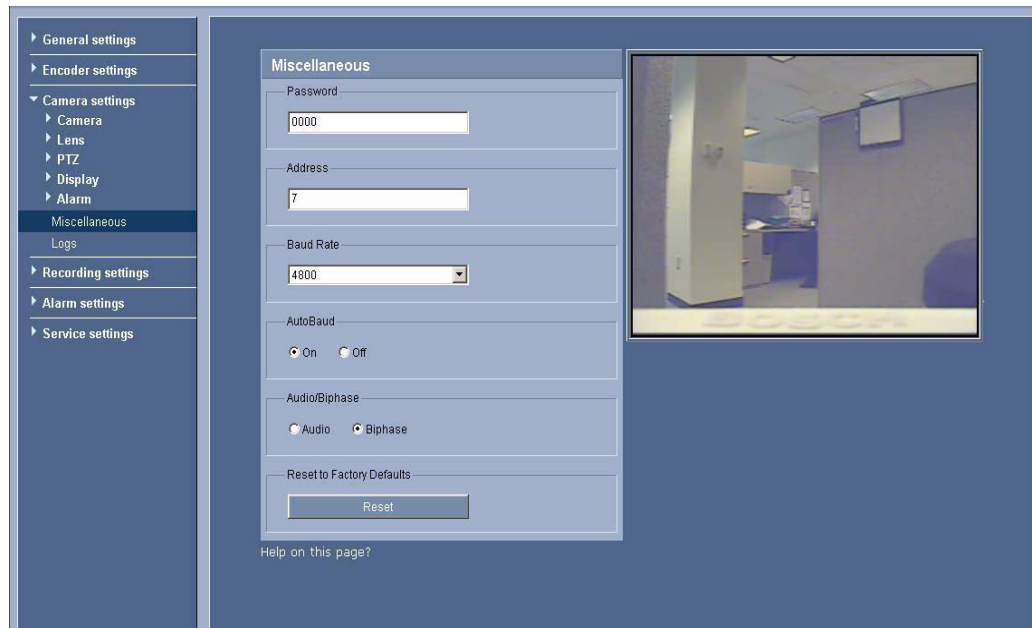To transmit audio via the IP connection, do the following:

1.   Open the AutoDome 700 Series Livepage, then click the Settings tab.
2.   Click Service Settings from the left pane, then click Livepage Configuration. The AutoDome 700 Series displays the Livepage Configuration screen (see *Figure 3.2*).
3.   Click the Transmit Audio radio button to enable for audio.
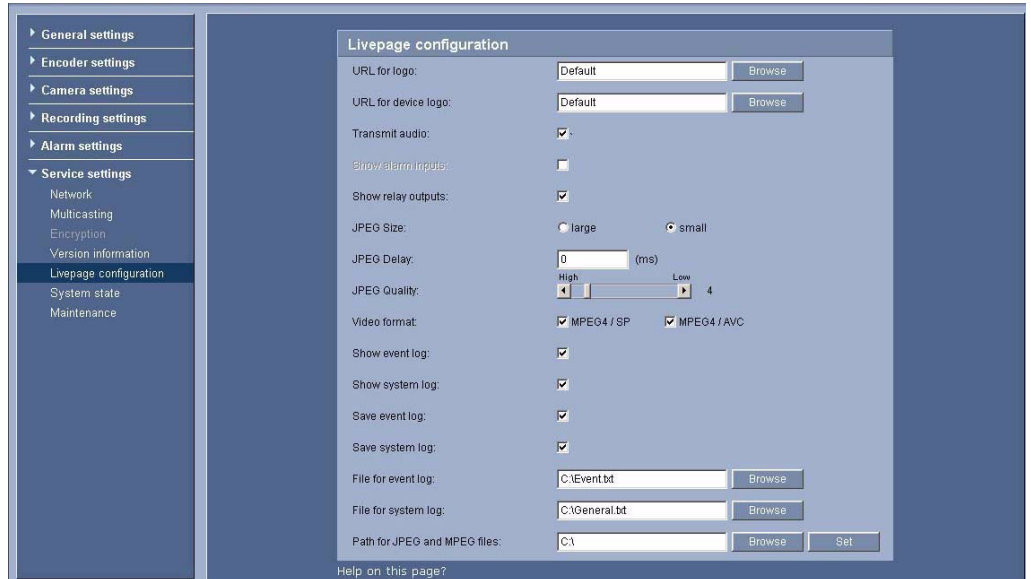
Figure 3.2   Livepage Configuration

3.1.5   **Configuring Gain (optional)**

Input gain control is supported over a range of -34dB to +12dB. The current video image is shown in the small window next to the slide controls to help verify the audio source and improve the Peak levels. Set the gain of the audio signals to suit your specific requirements. Changes are effective immediately. The current level is displayed next to the slide control to help do this. Make sure that the display does not go beyond the green zone during modulation.
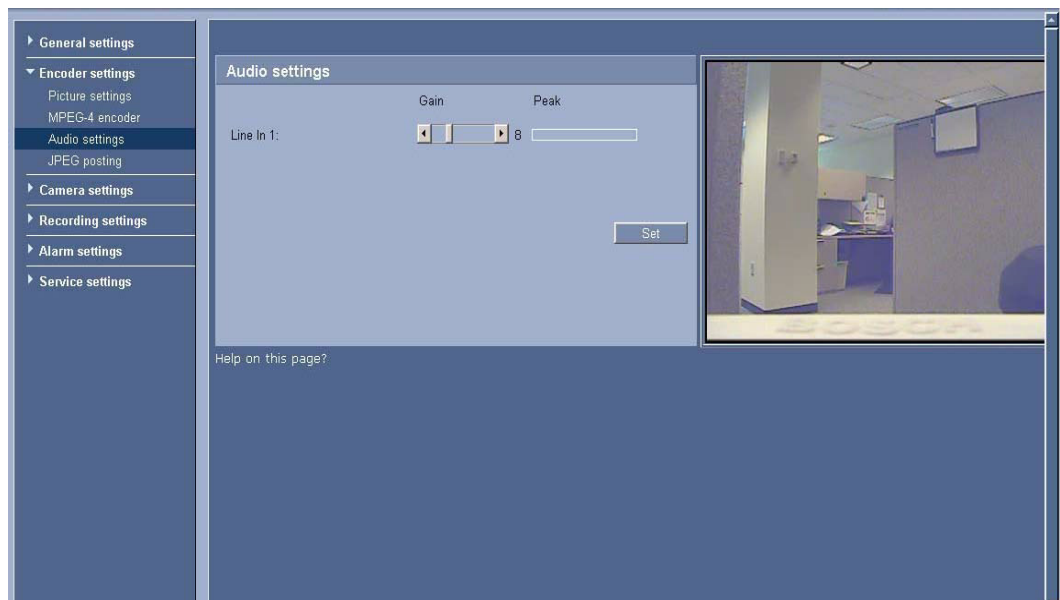
Figure 3.3   Setting Audio

4   Configuring the AutoDome 700 Series

The **SETTINGS** page provides access to the configuration menu, which contains all the unit's parameters arranged in groups. You can view the current settings by opening one of the configuration screens. You can change the settings by entering new values or by selecting a predefined value from a list field.

There are two options for configuring the unit or checking the current settings:

–   Basic mode
–   Advanced mode

In **Basic Mode** the most important parameters are arranged in seven groups. This allows you to change the basic settings with just a few entries and then put the device into operation.

**Advanced Mode** is recommended for expert users or system support personnel. You can access all unit parameters in this mode. Settings that affect the fundamental functionality of the unit (such as firmware updates) can only be altered in the advanced mode.

All parameter groups are described in this chapter in the order in which they are listed in the configuration menu, from the top of the screen to the bottom.

> **CAUTION!**
> The settings in the advanced mode should only be processed or modified by expert users or system support personnel.

All settings are backed up in the AutoDome 700 Series memory so they are not lost even if the power fails.

Starting Configuration

▶   Click the **SETTINGS** link in the upper section of the window. The Web browser opens a new page with the configuration menu.

Navigation

1.   Click one of the menu items in the left window margin. The corresponding submenu is displayed.
2.   Click one of the entries in the submenu. The Web browser opens the corresponding page.

Making Changes

Each configuration screen shows the current settings. You can change the settings by entering new values or by selecting a predefined value from a list field.

▶   After each change, click **Set** to save the change.

> **CAUTION!**
> Save each change with the associated **Set** button.
> Clicking the **Set** button saves the settings only in the current field. Changes in any other fields are ignored.

4.1   Basic Mode: Device Access

Device name

You can give the AutoDome 700 Series a name to make it easier to identify. The name makes the task of administering multiple units in larger video monitoring systems easier, for example using the Bosch Video Management System programs.

The device name is used for the remote identification of a unit, in the event of an alarm for example. For this reason, enter a name that makes it as easy as possible to quickly identify the location.

> **CAUTION!**
> Do not use any special characters, for example **&**, in the name.
> Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player being unable to play back the recording.

Password

An AutoDome 700 Series is generally protected by a password to prevent unauthorized access to the unit. You can use different authorization levels to limit access.

The AutoDome 700 Series operates with three authorization levels: **service**, **user** and **live**.

The highest authorization level is **service**. After entering the correct password, you can access all the functions of the AutoDome 700 Series and change all configuration settings.

With the **user** authorization level, you can operate the unit and also control cameras, for example, but you cannot change the configuration.

The lowest authorization level is **live**. It can only be used to view the live video image and switch between the different live image displays.

You can define and change a password for each authorization level if you are logged in as **service** or if the unit is not password protected.

Enter the password for the appropriate authorization level here.

> **NOTICE!**
> Proper password protection is only guaranteed when all higher authorization levels are also protected with a password. If a **live** password is assigned, for example, a **service** and a **user** password must also be set. When assigning passwords, you should therefore always start from the highest authorization level, **service**, and use different passwords.

Confirm password

In each case, enter the new password a second time to eliminate typing mistakes.

> **NOTICE!**
> A new password is only saved when you click the **Set** button. You should therefore click the **Set** button immediately after entering and confirming a password.

4.2   Basic Mode: Date/Time

Device date/Device time/Device time zone

If there are multiple devices operating in your system or network, it is important to synchronize their internal clocks. For example, it is only possible to identify and correctly evaluate simultaneous recordings when all units are operating on the same time. If necessary, you can synchronize the unit with your computer's system settings.

▶   Click the **Sync to PC** button to copy your computer's system time to the AutoDome 700 Series.

Time server IP address

The AutoDome 700 Series can receive the time signal from a time server using various time server protocols, and then use it to set the internal clock. The unit polls the time signal automatically once every minute.

▶   Enter the IP address of a time server here.

Time server type

Select the protocol that is supported by the selected time server. Preferably, you should select the **SNTP server** as the protocol. This supports a high level of accuracy and is required for special applications and subsequent function extensions.

Select **Time server** for a time server that works with the protocol RFC 868.

4.3   Basic Mode: Network

The settings on this page are used to integrate the AutoDome 700 Series into an existing network.

Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.

1.   Make the desired changes.
2.   Click the **Set and Reboot** button. The AutoDome 700 Series is rebooted and the changed settings are activated.

⚠	**CAUTION!** If you change the IP address, subnet mask or gateway address, the AutoDome 700 Series is only available under the new addresses after the reboot.

DHCP

If a DHCP server is employed in the network for the dynamic assignment of IP addresses, you can activate acceptance of IP addresses automatically assigned to the AutoDome 700 Series. Certain applications (VIDOS, Bosch Video Management System, Archive Player, Configuration Manager) use the IP address for the unique assignment of the unit. If you use these applications, the DHCP server must support the fixed assignment between IP address and MAC address, and must be appropriately set up so that, once an IP address is assigned, it is retained each time the system is rebooted.

IP address

Enter the desired IP address for the AutoDome 700 Series in this field. The IP address must be valid for the network.

Subnet mask

Enter the appropriate subnet mask for the selected IP address here.

Gateway address

If you want the unit to establish a connection to a remote location in a different subnet, enter the IP address of the gateway here. Otherwise leave the box blank (**0.0.0.0**).

4.4   Basic Mode: Encoder

Non-recording profile

You can select a profile for encoding the video signal.

You can use this to adapt the video data transmission to the operating environment (for example network structure, bandwidth, data load).

Pre-programmed profiles are available, each giving priority to different perspectives. When selecting a profile, details are displayed in the list field.

- **High resolution 1**

  Target bit rate: 2000 kbps

  Maximum bit rate: 4000 kbps

  Encoding interval: 30.00 ips

- **High resolution 2**

  Target bit rate: 1500 kbps

  Maximum bit rate: 3000 kbps

  Encoding interval: 30.00 ips

- **Low bandwidth**

  Target bit rate: 700 kbps

  Maximum bit rate: 1500 kbps

  Encoding interval: 30.00 ips

- **DSL**

  Target bit rate: 400 kbps

  Maximum bit rate: 500 kbps

  Encoding interval: 30.00 ips

- **ISDN (2B)**

  Target bit rate: 80 kbps

  Maximum bit rate: 100 kbps

  Encoding interval: 30.00 ips

- **ISDN (1B)**

  Target bit rate: 40 kbps

  Maximum bit rate: 50 kbps

  Encoding interval: 30.00 ips

- **Modem**

  Target bit rate: 20 kbps

  Maximum bit rate: 22 kbps

  Encoding interval: 30.00 ips

- **GSM**

  Target bit rate: 7 kbps

  Maximum bit rate: 8 kbps

  Encoding interval: 30.00 ips

4.5   Basic Mode: Audio

You can set the gain of the audio signals to suit your specific requirements. The current video image is shown in the small window next to the slide controls to help you check the audio source and improve assignments. Your changes are effective immediately.

If you connect via Web browser, you must activate the audio transmission on the **Livepage Functions** page (see *Section 2.5 The Livepage, page 10*). For other connections, the transmission depends on the audio settings of the respective system.

Audio

The audio signals are sent in a separate data stream parallel to the video data, and so increase the network load. The audio data are encoded according to G.711 and require an additional bandwidth of approx. 80 kbps for each connection. If you do not want any audio data to be transmitted, select **Off**.

Line In

You can set the line input gain. Make sure that the display does not go beyond the green zone during modulation.

4.6   Basic Mode: Recording

You can record the images from the AutoDome 700 Series on various local storage media or on an appropriately configured iSCSI system.

Here you can select a storage medium and immediately start the recording.

Storage medium

1.   Select the required storage medium from the list.
2.   Click the **Start** button to start the recording immediately.

4.7   Basic Mode: System Overview

The data on this page are for information purposes only and cannot be changed. Keep a record of this information in case technical assistance is required.

> **NOTICE!**
> You can select all required text on this page with the mouse and copy it to the clipboard with the [Ctrl]+[C] key combination, for example if you want to send it via e-mail.

4.8   Advanced Mode: General

4.9   Identification

Device ID

Each AutoDome 700 Series should be assigned a unique identifier that you can enter here as an additional means of identification.

Device Name

The camera name makes it easier to identify the remote camera location, in the event of an alarm for example. It will be displayed in the video screen if configured to do so. The camera name makes the task of administering cameras in larger video monitoring systems easier, for example using the VIDOS or Bosch Video Management System programs.

Enter a unique, unambiguous name for the camera in this field. You can use both lines for this.

> **CAUTION!**
> Do not use any special characters, for example **&**, in the name.
> Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player being unable to play back the recording.

You can use the second line for entering additional characters; these can be selected from a table.

1. Click the icon next to the second line. A new window with the character map is opened.
2. Click the required character. The character is inserted into the **Result** field.
3. In the character map, click the **<<** and **>>** icons to move between the different pages of the table, or select a page from the list field.
4. Click the **<** icon to the right of the **Result** field to delete the last character, or click the **X** icon to delete all characters.
5. Now click the **OK** button to apply the selected characters to the second line of the **Camera 1** parameters. The window will close.

Initiator extension
You can attach your own text to the initiator name of the AutoDome 700 Series to make the unit easier to identify in large iSCSI systems. This text is added to the initiator name, separated from it by a full stop. You can see the initiator name in the System Overview page.

4.10   Password

An AutoDome 700 Series is generally protected by a password to prevent unauthorized access to the unit. You can use different authorization levels to limit access.

> **NOTICE!**
> Proper password protection is only guaranteed when all higher authorization levels are also protected with a password. If a **live** password is assigned, for example, a **service** and a **user** password must also be set. When assigning passwords, you should therefore always start from the highest authorization level, **service**, and use different passwords.

Password
The AutoDome 700 Series operates with three authorization levels: **service**, **user** and **live**.
The highest authorization level is **service**. After entering the correct password, you can access all the functions of the AutoDome 700 Series and change all configuration settings.
With the **user** authorization level, you can operate the unit and also control cameras, for example, but you cannot change the configuration.
The lowest authorization level is **live**. It can only be used to view the live video image and switch between the different live image displays.
You can define and change a password for each authorization level if you are logged in as **service** or if the unit is not password protected.
Enter the password for the appropriate authorization level here.

Confirm password
In each case, enter the new password a second time to eliminate typing mistakes.

> **NOTICE!**
> A new password is only saved when you click the **Set** button. You should therefore click the **Set** button immediately after entering and confirming a password.

4.11 Date/Time

Date format

Select your required date format.

Device date/Device time

If there are multiple devices operating in your system or network, it is important to synchronize their internal clocks. For example, it is only possible to identify and correctly evaluate simultaneous recordings when all units are operating on the same time.

1. Enter the current date. Since the unit time is controlled by the internal clock, there is no need to enter the day of the week – it is added automatically.
2. Enter the current time or click the **Sync to PC** button to copy your computer's system time to the AutoDome 700 Series.

Device time zone

Select the time zone in which your system is located.

Daylight saving time

The internal clock can switch automatically between normal and daylight saving time (DST). The unit already contains the data for DST switch-overs up to the year 2018. You can use these data or create alternative time saving data if required.

NOTICE!

If you do not create a table, there will be no automatic switching. When changing and clearing individual entries, remember that two entries are usually related to each other and dependent on one another (switching to summer time and back to normal time).

1. First check whether the correct time zone is selected. If it is not correct, select the appropriate time zone for the system, and click the **Set** button.
2. Click the **Details** button. A new window will open and you will see the empty table.
3. Select the region or the city that is closest to the system's location from the list field below the table.
4. Click the **Generate** button to generate data from the database in the unit and enter it into the table.
5. Make changes by clicking an entry in the table. The entry is selected.
6. Clicking the **Delete** button will remove the entry from the table.
7. Select other values from the list fields below the table to change the entry. Changes are made immediately.
8. If there are empty lines at the bottom of the table, for example after deletions, you can add new data by marking the row and selecting required values from the list fields.
9. Now click the **OK** button to save and activate the table.

Time server IP address

The AutoDome 700 Series can receive the time signal from a time server using various time server protocols, and then use it to set the internal clock. The unit polls the time signal automatically once every minute.

Enter the IP address of a time server here.

Time server type

Select the protocol that is supported by the selected time server. Preferably, you should select the **SNTP server** as the protocol. This supports a high level of accuracy and is required for special applications and subsequent function extensions.

Select **Time server** for a time server that works with the protocol RFC 868.

4.12   **Display Stamping**

Various overlays or "stamps" in the video image provide important supplementary information. These overlays can be enabled individually and are arranged on the image in a clear manner.

Camera name stamping

This field sets the position of the camera name overlay. It can be displayed at the **Top**, at the **Bottom** or at a position of your choice that you can then specify using the **Custom** option. Or it can be set to **Off** for no overlay information.
1.   Select the desired option from the list.
2.   If you select the **Custom** option, additional fields are displayed where you can specify the exact position (**Position (XY)**).
3.   In the **Position (XY)** fields, enter the values for the desired position.

Time stamping

This field sets the position of the time overlay. It can be displayed at the **Top**, at the **Bottom** or at a position of your choice that you can then specify using the **Custom** option. Or it can be set to **Off** for no overlay information.
1.   Select the desired option from the list.
2.   If you select the **Custom** option, additional fields are displayed where you can specify the exact position (**Position (XY)**).
3.   In the **Position (XY)** fields, enter the values for the desired position.

Display milliseconds

If necessary, you can also display milliseconds. This information can be useful for recorded video images; however, it does increase the processor's computing time. Select **Off** if you do not need to display milliseconds.

Alarm mode stamping

Select **On** to display a text message overlay in the image in the event of an alarm. It can be displayed at a position of your choice that you can then specify using the **Custom** option. Or it can be set to **Off** for no overlay information.
1.   Select the desired option from the list.
2.   If you select the **Custom** option, additional fields are displayed where you can specify the exact position (**Position (XY)**).
3.   In the **Position (XY)** fields, enter the values for the desired position.

Alarm message

Enter the message to be displayed in the image in the event of an alarm. The maximum text length is 31 characters.

Title OSD

Select **On** to continuously display sector or shot title overlays in the image. Select **Momentary** to display sector or shot title overlays for a few seconds. OSD titles can be displayed at a position of your choice, or it can be set to **Off** for no overlay information.
1.   Select the desired option from the list.
2.   Specify the exact position (**Position (XY)**).
3.   In the **Position (XY)** fields, enter the values for the desired position.

Camera OSD

Select **On** to momentarily display camera response information, such as Digital Zoom, Iris open/close, and Focus near/far overlays in the image. Select **Off** to display no information.

1.   Select the desired option from the list.
2.   Specify the exact position (**Position (XY)**).
3.   In the **Position (XY)** fields, enter the values for the desired position.

Video watermarking

Choose **On** if you wish the transmitted video images to be "watermarked". After activation, all images are marked with a green **W**. A red **W** indicates that the sequence (live or saved) has been manipulated.

4.13   Advanced Mode: Web Interface

4.14   Appearance

On this page you can adapt the appearance of the web interface and change the website language to meet your requirements. If necessary, you can replace the manufacturer's logo (top right) and the product name (top left) in the top part of the window with individual graphics.

> **NOTICE!**
>
> You can use either GIF or JPEG images. The file paths must correspond to the access mode (for example **C:\Images\Logo.gif** for access to local files, or **http://www.mycompany.com/images/logo.gif** for access via the Internet/Intranet).
>
> When accessing via the Internet/Intranet, ensure that a connection is always available to display the image. The image file is not stored in the AutoDome 700 Series.

Website language

Select the language for the user interface here.

Company logo

Enter the path to a suitable graphic if you want to replace the manufacturer's logo. The image file can be stored on a local computer, in the local network or at an Internet address.

Device logo

Enter the path to a suitable graphic if you want to replace the product name. The image file can be stored on a local computer, in the local network or at an Internet address.

> **NOTICE!**
>
> If you want to use the original graphics again, simply delete the entries in the **Company logo** and **Device logo** fields.

JPEG interval

You can specify the interval at which the individual images should be generated for the M-JPEG image on the **LIVEPAGE**.

4.15   Livepage Functions

On this page you can adapt the**Livepage** functions to your requirements. You can choose from a variety of different options for displaying information and controls.

1.   Check the box for the items that are to be made available on the **Livepage**. The selected items are indicated by a check mark.
2.   Check whether the required functions are available on the **Livepage**.

Transmit Audio

You can only select this option if audio transmission is actually switched on (see *Section 4.30 Audio, page 38*).The audio signals are sent in a separate data stream parallel to the video data, and so increase the network load. The audio data are encoded according to G.711 and require an additional bandwidth of approx. 80 kbps for each connection.

Lease time (s)

The lease time in seconds determines the time beyond which a different user is authorized to control the camera after no further control signals are received from the current user. After this time interval, the camera is automatically enabled.

Show alarm inputs

The alarm inputs are displayed next to the video image as icons along with their assigned names. If an alarm is active, the corresponding icon changes color.

Show relay outputs

Relay outputs are shown next to the video image as icons, along with their assigned names. If the relay is switched, the icon changes color.

Show VCA trajectories

When video content analysis (VCA) is activated, check this item to show additional information that traces the path of objects.

Show VCA metadata

When video content analysis (VCA) is activated, additional information is displayed in the live video stream. For example, in Motion+ mode, the sensor areas for motion detection are marked.

Show event log

The event messages are displayed along with the date and time in a field next to the video image.

Show system log

The system messages are displayed along with the date and time in a field next to the video image and provide information about establishing and ending connections, for example.

Allow snapshots

Here you can specify whether the icon for saving individual images should be displayed below the live image. Individual images can only be saved if this icon is visible.

Allow local recording

Here you can specify whether the icon for saving video sequences on the local memory should be displayed below the live image. Video sequences can only be saved if this icon is visible.

Path for JPEG and Video files

1.   Enter the path for the storage location of individual images and video sequences that you can save from the **Livepage**.
2.   If necessary, click **Browse** to find a suitable directory.

4.16 Logging

Save event log

Check this option to save event messages in a text file on your local computer.

You can then view, edit and print this file with any text editor or the standard Office software.

File for event log

1. Enter the path for saving the event log here.
2. If necessary, click **Browse** to find a suitable directory.

Save system log

Check this option to save system messages in a text file on your local computer.

You can then view, edit and print this file with any text editor or the standard Office software.

File for system log

1. Enter the path for saving the system log here.
2. If necessary, click **Browse** to find a suitable directory.

4.17 Advanced Mode: Camera

4.18 Installer Menu

Orientation

Reverses the image 180º (ideal when mounting upside down). Set the orientation to Normal (default) or Inverted.

> **CAUTION!**
> The AutoDome disables the Privacy Mask function if the orientation is set to Inverted.

SC Settings

Click the Default button to restore all camera settings to their original defaults.

SC Data

Click the default button to clear all preposition, privacy mask, and other user settings.

4.19 Encoder Profile

For the video signal encoding, you can select a code algorithm and you can change the presets for the profiles.

You can adapt the video data transmission to the operating environment (for example network structure, bandwidth, data load). To this end, the AutoDome 700 Series simultaneously generates two data streams (Dual Streaming), which compression settings you can select individually, for example one setting for transmissions to the Internet and one for LAN connections.

Pre-programmed profiles are available, each giving priority to different perspectives.

–   **High resolution 1**

Target bit rate: 2000 kbps

Maximum bit rate: 4000 kbps

Encoding interval: 30.00 ips

–   **High resolution 2**

Target bit rate: 1500 kbps

Maximum bit rate: 3000 kbps

Encoding interval: 30.00 ips

–   **Low bandwidth**

Target bit rate: 700 kbps

Maximum bit rate: 1500 kbps

Encoding interval: 30.00 ips

–   **DSL**

Target bit rate: 400 kbps

Maximum bit rate: 500 kbps

Encoding interval: 30.00 ips

–   **ISDN (2B)**

Target bit rate: 80 kbps

Maximum bit rate: 100 kbps

Encoding interval: 30.00 ips

–   **ISDN (1B)**

Target bit rate: 40 kbps

Maximum bit rate: 50 kbps

Encoding interval: 30.00 ips

–   **Modem**

Target bit rate: 20 kbps

Maximum bit rate: 22 kbps

Encoding interval: 30.00 ips

–   **GSM**

Target bit rate: 7 kbps

Maximum bit rate: 8 kbps

Encoding interval: 30.00 ips

You can change individual parameter values of a profile and you can also change the name.
You can switch between profiles by clicking the appropriate tabs.

CAUTION!

The profiles are rather complex. They include a large number of parameters that interact with one another, so it is generally best to use the default profiles.

Change the profiles only once you are fully familiar with all the configuration options.

In the default setting, Stream 2 is transmitted for alarm connections and automatic connections. Bear this fact in mind when assigning the profile.

NOTICE!

All parameters combine to make up a profile and are dependent on one another. If you enter a setting that is outside the permitted range for a particular parameter, the nearest permitted value will be substituted when the settings are saved.

Profile name
You can enter a new name for the profile here. The name is then displayed in the list of available profiles in the **Profile name** field.

Target data rate
You can limit the data rate for the AutoDome 700 Series to optimize utilization of the bandwidth in your network. The target data rate should be set according to the desired picture quality for typical scenes with no excessive motion.
For complex images or frequent changes of image content due to frequent movements, this limit can be temporarily exceeded up to the value you enter in the **Maximum data rate** field.

Maximum data rate
This maximum data rate is not exceeded under any circumstances. Depending on the video quality settings for the I- and P-frames, this fact can result in individual images being skipped. The value entered here must be at least 10% higher than the value entered in the **Target data rate** field. If the value entered here is too low, it will automatically be adjusted.

Video resolution
Here you can select the desired resolution for the video image. The following resolutions are available for standard definition settings only:
–   **CIF**
    352 × 288/240 pixels
–   **4CIF/D1**
    704 × 576/480 pixels

Encoding Interval
The figure selected here determines the interval at which images are encoded and transmitted. The image rate in ips (images per second) is displayed next to the text field. Use the slide bar to select a frame rate from 30.00 ips to 1 ips.

Expert Settings
Use the expert settings to adapt the I-frame quality and the P-frame quality to specific requirements, if necessary. The setting is based on the H.264 quantization parameter (QP).

GOP Structure
Select the structure you require for the Group of Pictures here. Depending on whether you place greater priority on having the lowest possible delay (IP frames only) or using as little bandwidth possible, you can choose between IP, IBP, and IBBP.

I-frame Distance
This parameter allows you to set the intervals in which the I-frames will be coded. 0 means auto mode, whereby the video server inserts I-frames as necessary. An entry of 1 indicates that I-frames are continuously generated. An entry of 2 indicates that only every second image is an I-frame, and 3 only every third image etc.; the frames in between are coded as P-frames.

I-frame Quality
This setting allows you to adjust the image quality of the I-frames. The basic setting Auto automatically adjusts the quality to the settings for the P-frame video quality. Alternatively, you can use the slide control to set a value between 9and51. The value 9 represents the best image quality with, if necessary, a lower frame refresh rate depending on the settings for the maximum data rate. A value of 51 results in a very high refresh rate and lower image quality.

P-frame Quality

This setting allows you to adjust the maximum image quality of the P-frames. The basic setting Auto automatically adjusts to the optimum combination of movement and image definition (focus). Alternatively, you can use the slide control to set a value between 9and51. The value 9 represents the best image quality with, if necessary, a lower frame refresh rate depending on the settings for the maximum data rate. A value of 51 results in a very high refresh rate and lower image quality.

Default

Click **Default** to return the profile to the factory default values.

4.20 Encoder Streams

Select the property and default profile for each H.264 stream and set the parameters for the M-JPEG stream.

– **H.264 BP+ bit-rate-limited**

Select this setting when using hardware decoders. The bit rate is limited to 1.2 Mbps.

CABAC: off

CAVLC: on

GOP structure: IP

I-frame distance: 15

Deblocking filter: on

– **H.264 MP SD**

Select this setting when using software decoders, PTZ and for rapid movements in the images.

CABAC: on

CAVLC: off

GOP structure: IP

I-frame distance: 30

Deblocking filter: on

To select the stream options:

1. Select the required encoder properties and one of the encoder profiles for each data stream.
2. Click the **Preview** button. The preview screens for both data streams are shown.
3. Click the **1:1 Live View** button below the preview screen to open a new window with the original data stream and to check the image quality and the transmission rate.

Property

Select one of the H.264 standards for each stream.

Default profile

Select one of the following profiles for each stream:

– High resolution 1
– High resolution 2
– Low bandwidth
– DSL
– ISDN (2B)
– ISDN (1B)
– Modem
– GSM

Refer to *Section 4.19 Encoder Profile, page 28*, for more details about each stream.

Preview

Click the **Preview** button to open a small static preview window for each stream. To enlarge the preview and view live video, click the **1:1 Live View** button.

JPEG stream

Select the resolution, frame rate, and image quality parameters for the M-JPEG stream.

- **Frame rate**: Select one of the following frame rates: 5, 10, 15, 20, 25, or 30 ips.
- **Picture quality**: his setting allows you to adjust the image quality. Use the slide bar to choose a quality between Low and High.

4.21 Privacy Masks

Privacy Masking is used to block out a specific area of a scene from being viewed. Masks can be configured as a gray area with four corners . You may define a total of 24 privacy masks.

> **NOTICE!**
> - The AutoDome disables the Privacy Mask feature if the orientation of the camera is set to Inverted. Refer to *Section 4.18 Installer Menu, page 28*, for orientation settings.
> - You cannot apply a privacy mask 70° (tilt direction) below the horizon.

To add a privacy mask to a scene:

1. Navigate to the scene in which you want to apply a privacy mask.
    a. Click the View Control link.
    b. Use the PTZ controls to view the scene.
2. Select the privacy mask number to apply to the scene.
   The preview window displays a gray rectangle in the scene.
3. Click the Enable check box to activate the privacy mask.
   The privacy mask in the preview window changes to orange to indicate that the mask will appear in the video streams on the Livepage.
4. Place the cursor inside the privacy mask area in the preview window; then click and drag to move the privacy mask.
5. Place the cursor on a corner or on a vertex of the mask rectangle; then click and drag to expand or shrink the privacy mask area.

> **NOTICE!**
> Draw the mask 10% larger than the object to ensure that the mask completely covers the object as the AutoDome zooms in and out.

6. Click Set to save the privacy mask size and position.
   An image window displays the privacy mask.
7. To hide an individual mask, select the mask number and clear the Enable check box.
8. To hide all masks from an image view, click the Hide Masks check box.
   Note: If you choose to hide all masks, you must enable each enable each individual mask to show the mask in the scene.

4.22   Camera Settings

White Balance
Adjusts the color settings to maintain the quality of the white areas of the image.
–   **ATW**: allows the camera to continuously adjust color reproduction.
–   **Indoor**: white balance tracking for indoor use.
–   **Outdoor**: white balance tracking for outdoor use.
–   **AWB Hold**: places the ATW on hold and saves the color settings.
–   **Extended ATW** (default): allows the camera to constantly adjust for optimal color reproduction.
–   **Manual**: Red and Blue gain can be manually set to a desired position.
–   **Outdoor Auto:** Automatically adjusts the white balance to reduce the dark tones at dawn or dusk.
–   **Sodium Lamp Auto:** Automatically adjusts for sodium vapor light to restore objects to their original color.
–   **Sodium Lamp:** Optimizes the sodium vapor light to restore objects to their original color.

Red Gain
The red gain adjustment offsets the factory white point alignment (reducing red introduces more cyan).

Blue Gain
The blue gain adjustment offsets the factory white point alignment (reducing blue introduces more yellow). It is only necessary to change the white point offset for special scene conditions.

Gain Control
Adjusts the automatic gain control (AGC). Automatically sets the gain to the lowest possible value needed to maintain a good picture.
–   **AGC** (default): electronically brightens dark scenes, which may cause graininess in low light scenes.
–   **Fixed**: no enhancement. This setting disables the Max. Gain Level option.
     If you select this option, the AutoDome 700 Series makes the following changes automatically:
     –   **Night Mode**: switches to Color
     –   **Auto Iris**: switches to Constant

Maximum Gain Level
Controls the maximum value the gain can have during AGC operation. To set the maximum gain level, choose from:
–   **Normal**
–   **Medium**
–   **High** (default)

Sharpness
Adjusts the sharpness of the picture. To set the sharpness, type a value between 1 and 15 inclusive. The default setting is 12.

Shutter Mode
–   **Off**: turns the Auto SensUP Off.

–   **AutoSensUp**: increases camera sensitivity by increasing the integration time on the camera. This is accomplished by integrating the signal from a number of consecutive video frames to reduce signal noise.
    If you select this option, the AutoDome makes the following change automatically:

    –   **Auto Iris**: switches to Constant

Shutter

Adjusts the electronic shutter speed (AES). Controls the time period for which light is gathered by the collecting device. The default setting is 1/60 second for NTSC and 1/50 for PAL cameras. The range of settings is from 1/1 to 1/10000.

Backlight Compensation

Optimizes the video level for the selected area of the image. Parts outside this area may be underexposed or overexposed. Select On to optimize the video level for the central area of the image. The default setting is Off.

High Sensitivity Setting

Stabilization

Turns on video stabilization.

Wide Dynamic Range

Turns on the wide dynamic range feature. Wide Dynamic Range improves image reproduction in extreme high-contrast environments.

Night Mode

Selects night mode (B/W) to enhance lighting in low light scenes. Select from the following options:

–   **Monochrome**: Forces the camera to stay in Nigh Mode and transmit monochrome images.
–   **Color**: The camera does not switch to Night Mode regardless of ambient light conditions.
–   **Auto** (default): The camera switches out of Night Mode after the ambient light level reaches a pre-defined threshold.

Night Mode Threshold

Adjusts the level of light at which the camera automatically switches out of night mode (B/W) operation. Select a value between 10 and 55 (in increments of 5), where 10 is earlier and 55 is later.

Noise Reduction

Turns on the 2D and 3D noise reduction feature.

Noise Reduction Level

Adjusts the noise level to the appropriate level for shooting conditions. Select a value between 1 and 5.

4.23   Lens Settings

Auto Focus

Continuously adjusts the lens automatically to the correct focus for the sharpest picture.

– **One Push** (default): activates the Auto Focus feature after the camera stops moving. Once focused, Auto Focus is inactive until the camera is moved again.
– **Auto Focus**: Auto Focus is always active.
– **Manual**: Auto Focus is inactive.

Focus Polarity

– **Normal (default)**: focus controls operate normally.
– **Reverse**: focus controls are reversed.

Focus Speed

Controls how fast the Auto focus will readjust when the focus becomes blurred. Select from the following options:

– **Super Slow**
– **Slow** (default)
– **Medium**
– **Fast**

Auto Iris

Automatically adjusts the lens to allow the correct illumination of the camera sensor. This type of lens is recommended for use where there are low light or changing light conditions.

– **Constant** (default): camera constantly adjusts to varying light conditions (default). If you select this option, the AutoDome makes the following changes automatically:

  – **Gain Control**: switches to AGC.
  – S**hutter Speed**: switches to default.

– **Manual**: camera must be manually adjusted to compensate for varying light conditions.

Iris Polarity

Capability to reverse the operation of the iris button on the controller.

– **Normal** (default): iris controls operate normally.
– **Reverse**: iris controls are reversed.

Auto Iris Level

Increases or decreases brightness according to the amount of light. Type a value between 1 and 15, inclusive. The default setting is 8.

Maximum Zoom Speed

Controls the zoom speed. The default setting is Medium.

Zoom Polarity

Capability to reverse the operation of the zoom button on the controller.

– **Normal** (default): zoom controls operate normally.
– **Reverse**: zoom controls are reversed.

Digital Zoom

Digital zoom is a method of decreasing (narrowing) the apparent angle of view of a digital video image. It is accomplished electronically, without any adjustment of the camera's optics, and no optical resolution is gained in the process. Select Off to disable or On to enable this feature. The default setting is On.

4.24   PTZ Settings

Auto Pan Speed
Continuously pans the camera at a speed between right and left limit settings. Type a value
between 1 and 60 (expressed in degrees), inclusive. The default setting is 30.

Inactivity
Selects the time period the dome must be not controlled until the inactivity event will be
executed.
–   **Off** (default): camera remains on a current scene indefinitely.
–   **Scene 1**: camera returns to Preset 1.
–   **Previous Aux**: camera returns to the previous activity.

Inactivity Period
Determines the behavior of the dome when the control for dome is inactive. Select a time
period from the pull-down list (3 sec. - 10 min.). The default setting is 2 minutes.

Auto Pivot
The Auto Pivot tilts the camera through the vertical position as the camera is rotated to
maintain the correct orientation of the image. Set the Auto Pivot to On (default) to
automatically rotate the camera 180º when following a subject traveling directly beneath the
camera. To disable this feature, click Off.

Freeze Frame
Select On to freeze the image while the AutoDome moves to a predetermined scene position.
Off is the default setting.

Set Autopan Left Limit
Sets the left pan limit for a user-defined Autopan.

Set Autopan Right Limit
Sets the right pan limit for a user-defined Autopan.

Tilt Up Limit
Sets the upper tilt limit of the camera.

Tilt Limits
Click the Reset button to clear the upper tilt limit.

4.25   Diagnostics

Accesses the Built-in Self Test (BIST). Click the BIST button to display the number of times
the AutoDome 700 Series:
–   performed a homing event.
–   failed to home properly.
–   restarted.
–   lost video.

4.26   Preposition and Tours

The AutoDome 700 Series can store up to 99 preset scenes and this section allows you to define the individual scenes and a preposition tour comprised of the defined scenes.

You define individual preposition scenes, then use these scenes to define the preposition tour. The tour starts from the lowest scene number in the tour and progresses sequentially to the highest scene number in the tour. The tour displays each scene for a specified dwell time before advancing to the next scene.

By default, all scenes are part of the preposition tour unless removed.

To define and edit an individual scene:
1. Navigate to the scene that you want to define as a preposition.
    a.   Click the View Control link.
    b.   Use the PTZ controls to move the camera into position.
2. Click the Add scene ("+") button to define the preposition.
3. Select a number for the scene, from 1 to 99.
4. Type an optional name for the scene, up to 20 characters long.
5. Click OK to save the scene to the Preposition list.
    The asterisk (*) to the left of the scene name indicates the scene is part of the preposition tour.
6. To delete a scene from the list, select the scene and click the Delete scene ("X") button.
7. To overwrite an existing scene:
    a.   Click the View Control link to access the PTZ controls.
    b.   Use the PTZ controls to navigate to the new scene.
    c.   Click the scene in the Preposition list you want to overwrite.
    d.   Click the Overwrite scene button to apply the new scene to the existing preposition.
    e.   To change the name of the scene, double-click the scene in the list. Then, change the name in the Edit Scene dialog box and click OK.
8. To view a scene in the preview window, select the scene in the list and click the Show scene button.
9. To view a scene from the Livepage:
    a.   Click a scene number below the PTZ controls on the View Control tab.
    b.   Use the keypad and the Show Shot button on the Aux Control tab.

To define a preposition tour:
1. Create the individual scenes.
    By default, all scenes in the Preposition list are in the preposition tour.
2. To remove a scene from the tour, select the scene in the list and uncheck the Include in standard tour box.
3. Select a dwell time from the Standard preposition tour drop-down list.
4. To start the preposition tour:
    a.   Return to the Livepage.
    b.   Click the Aux Control tab.
    c.   Type 8 in the input box and click the Aux On button.
5. To stop the tour, type 8 and click the Aux Off button.

4.27   Sectors

Sector

The AutoDome 700 Series pan capability is 360° and is divided into 16 equal sectors. This section allows you to apply a title for each sector and to designate any sectors as a Blanked Sector.

To define a title for sectors:
1.   Place the cursor in the input box to the right of the sector number.
2.   Type a title for the sector, up to 20 characters long.
3.   To blank the sector, click the check box to the right of the sector title.

4.28   Miscellaneous

Address

Allows the appropriate dome to be operated via the numerical address in the control system. Type a number between 0000 and 9999, inclusive, to identify the camera.

4.29   Logs

To save the log file information:
1.   Click Download to obtain the log information.
2.   Click Save.
3.   Navigate to the directory in which you want to store the log information.
4.   Type a name for the log file and click Save.

4.30   Audio

You can set the gain of the audio signals to suit your specific requirements. The current video image is shown in the small window next to the slide controls to help you check the audio source and improve assignments. Your changes are effective immediately.

If you connect via Web browser, you must activate the audio transmission on the **Livepage Functions** page (see *Section 2.5 The Livepage, page 10*). For other connections, the transmission depends on the audio settings of the respective system.

Audio

The audio signals are sent in a separate data stream parallel to the video data, and so increase the network load. The audio data are encoded according to G.711 and require an additional bandwidth of approx. 80 kbps for each connection. If you do not want any audio data to be transmitted, select **Off**.

Line In

You can set the line input gain. Make sure that the display does not go beyond the green zone during modulation.

Record Format

Select a format for audio recording. The default value is G.711. Select L16 if you want better audio quality with higher sampling rates. This requires approx. eight times the G.711 bandwidth.

4.31   Advanced Mode: Recording

4.32   Storage Management

You can record the images from the AutoDome 700 Series on various local storage media or on an appropriately configured iSCSI system.

It is also possible to let the VRM Video Recording Manager control all recording when accessing an iSCSI system. This is an external program for configuring recording tasks for video servers. For further information please contact your local customer service at Bosch Security Systems, Inc.

Device manager

If you activate the **VRM** option in this screen, the VRM Video Recording Manager will manage all recording and you will not be able to configure any further settings here.

CAUTION!

Activating or deactivating VRM causes the current settings to be lost; they can only be restored through reconfiguration.

Recording media

Select the required recording media here so that you can then activate them and configure the recording parameters.

iSCSI Media

If you want to use an **iSCSI system** as a recording medium, you must set up a connection to the required iSCSI system and set the configuration parameters.

NOTICE!

The iSCSI storage system selected must be available on the network and completely set up. Amongst other things, it must have an IP address and be divided into logical drives (LUN).

1. Enter the IP address of the required iSCSI destination in the **iSCSI IP address** field.
2. If the iSCSI destination is password protected, enter this into the **Password** field.
3. Click the **Read** button. The connection to the IP address will be established. In the **Storage overview** field, you can see the corresponding logical drives.

Local Media

The supported local recording media are displayed in the Storage overview field.

Activating and Configuring Storage Media

The storage overview displays the available storage media. You can select individual media or iSCSI drives and transfer these to the **Managed storage media** list. You can activate the storage media in this list and configure them for storage.

CAUTION!

Each storage medium can only be associated with one user. If a storage medium is already being used by another user, you can decouple the user and connect the drive with the AutoDome 700 Series. Before decoupling, make absolutely sure that the previous user no longer needs the storage medium.

1. In the **Recording media** section, click the **iSCSI Media** and **Local Media** tabs to display the applicable storage media in the overview.
2. In the **Storage overview** section, double-click the required storage medium, an iSCSI LUN or one of the other available drives. The medium is then added to the **Managed storage media** list. In the **Status** column, newly added media are indicated by the status **Not active**.
3. Click the **Set** button to activate all media in the **Managed storage media** list. In the **Status** column, these are indicated by the status **Online**.
4. Check the box in the **Rec. 1** or **Rec. 2** to specify which data stream should be recorded on the storage media selected. **Rec. 1** stores Stream 1, **Rec. 2** stores Stream 2. This means that you can record the standard data stream on a hard drive and record alarm images on the mobile CF card, for example.
5. Check the boxes for the **Overwrite older recordings** option to specify which older recordings can be overwritten once the available memory capacity has been used. **Recording 1** corresponds to Stream 1, **Recording 2** corresponds to Stream 2.

CAUTION!
If older recordings are not allowed to be overwritten when the available memory capacity has been used, the recording in question will be stopped. You can specify limitations for overwriting old recordings by configuring the retention time (see *Section 4.34 Retention Time, page 42*).

Formatting Storage Media
You can delete all recordings on a storage medium at any time.

CAUTION!
Check the recordings before deleting and back up important sequences on the computer's hard drive.

1. Click a storage medium in the **Managed storage media** list to select it.
2. Click the **Edit** button below the list. A new window will open.
3. Click the **Formatting** button to delete all recordings in the storage medium.
4. Click **OK** to close the window.

Deactivating Storage Media
You can deactivate any storage medium from the **Managed storage media** list. It is then no longer used for recordings.
1. Click a storage medium in the **Managed storage media** list to select it.
2. Click the **Remove** button below the list. The storage medium is deactivated and removed from the list.

4.33   Recording Profiles

You can define up to ten different recording profiles. You will then use these recording profiles in the recording scheduler, where they are linked with the individual days and times (see *Section 4.35 Recording Schedule, page 42*).

(i)

NOTICE!
You can change or add to the recording profile description on the tabs on the **Recording Scheduler** page (see *Page 42*).

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1.   Click one of the tabs to edit the corresponding profile.
2.   If necessary, click the **Default** button to return all settings to their default values.
3.   Click the **Copy Settings** button if you want to copy the currently visible settings to other profiles. A new window will open and you can select the profiles in which you want to copy the settings.
4.   For each profile, click the **Set** button to save the settings in the unit.

Standard recording
Here you can select the mode for standard recordings.
If you select **Continuous**, the recording proceeds continuously. If the maximum memory capacity is reached, older recordings will automatically be overwritten. If you select the **Pre-alarm** option, recording will only take place in the pre-alarm time, during the alarm and during the set post-alarm time.
If you select **Off**, no automatic recording takes place.

(!)

CAUTION!
You can specify limitations for overwriting older recordings in **Continuous** mode by configuring the retention time (see *Section 4.34 Retention Time, page 42*).

Standard profile
From this field, you can select the encoder profile to be used for recording (see *Section 4.19 Encoder Profile, page 28*).

(i)

NOTICE!
The recording profile can deviate from the standard setting **Active profile** and is only used during an active recording.

Pre-alarm Time
You can select the required pre-alarm time from the list field.

Post-alarm Time
You can select the required post-alarm time from the list field.

Post-alarm profile
You can select the encoder profile to be used for recording during the post-alarm time (see *Section 4.19 Encoder Profile, page 28*).
The **Standard profile** option adopts the selection at the top of the page.

Alarm input / Motion alarm / Video loss alarm
Here you can select the alarm sensor that is to trigger a recording.

Virtual alarm

Here you can select the virtual alarm sensors that are to trigger a recording, via RCP+ commands or alarm scripts, for example.

NOTICE!

For more information, please see the **Alarm Task Script Language** document and the RCP+ documentation. These documents can be found on the product CD supplied.

Recording includes

You can specify whether, in addition to video data and metadata (for example alarms, VCA data and serial data) should also be recorded. Including metadata could make subsequent searches of recordings easier but it requires additional memory capacity.

CAUTION!

Without metadata, it is not possible to include video content analysis in recordings.

4.34   Retention Time

You can specify the retention times for recordings. If the available memory capacity of a medium has been used, older recordings are only overwritten if the retention time entered here has expired.

NOTICE!

Make sure that the retention time corresponds with the available memory capacity. A rule of thumb for the memory requirement is as follows: 1 GB per hour retention time with 4CIF for complete frame rate and high image quality.

Retention time

Enter the required retention time in hours or days for each recording. **Recording 1** corresponds to Stream 1, **Recording 2** corresponds to Stream 2.

4.35   Recording Schedule

The recording scheduler allows you to link the created recording profiles with the days and times at which the camera's images are to be recorded in the event of an alarm.

You can link any number of 15-minute intervals with the recording profiles for each day of the week. Moving the mouse cursor over the table displays the time below it. This aids orientation.

In addition to the normal weekdays, you can define holidays that are not in the standard weekly schedule on which recordings are to apply. This allows you to apply a schedule for Sundays to other days with dates that fall on varying weekdays.

1.   Click the profile you want to link in the **Time periods** field.
2.   Click in a field in the table, hold down the mouse button and drag the cursor over all the periods to be assigned to the selected profile.
3.   Use the right mouse button to deselect any of the intervals.
4.   Click the **Select All** button to link all time intervals to the selected profile.
5.   Click the **Clear All** button to deselect all of the intervals.
6.   When you are finished, click the **Set** button to save the settings in the unit.

Holidays

You can define holidays that are not in the standard weekly schedule on which recordings are to apply. This allows you to apply a schedule for Sundays to other days with dates that fall on varying weekdays.

1. Click the **Holidays** tab. Any days that have already been selected will be shown in the table.
2. Click the **Add** button. A new window will open.
3. Select the desired date from the calendar. You can select several consecutive calendar days by holding down the mouse button. These will later be displayed as a single entry in the table.
4. Click **OK** to accept the selection. The window will close.
5. Assign the individual holidays to the recording profiles, as described above.

Deleting Holidays

You can delete holidays you have defined yourself at any time.

1. Click the **Delete** button. A new window will open.
2. Click the date you wish to delete.
3. Click **OK**. The item will be deleted from the table and the window will close.
4. The process must be repeated for deleting additional days.

Time periods

You can change the names of the recording profiles.

1. Click a profile and then the **Rename** button.
2. Enter your chosen name and then click the **Rename** button again.

Activating the Recording

After completing configuration you must activate the recording scheduler and start the recording. Once recording is underway, the **Recording Profiles** and **Recording Scheduler** pages are deactivated and the configuration cannot be modified.

You can stop the recording activity at any time and modify the settings.

1. Click the **Start** button to activate the recording scheduler.
2. Click the **Stop** button to deactivate the recording scheduler. Running recordings are interrupted and the configuration can be changed.

Recording status

The graphic indicates the recording activity of the AutoDome 700 Series. You will see an animated graphic while recording is taking place.

4.36   Recording Status

Certain details on the recording status are displayed here for information purposes. You cannot change any of these settings.

4.37   Advanced Mode: Alarm

4.38   Alarm Connections

You can select how the AutoDome 700 Series responds to an alarm. In the event of an alarm, the unit can automatically connect to a pre-defined IP address. You can enter up to ten IP addresses to which the AutoDome 700 Series will connect in sequence in the event of an alarm, until a connection is made.

Connect on alarm
Select **On** so that the AutoDome 700 Series automatically connects to a predefined IP address in the event of an alarm.
By setting **Follows input 1** the unit maintains the connection that has been automatically established for as long as an alarm exists on alarm input 1.

> **NOTICE!**
> In the default setting, Stream 2 is transmitted for alarm connections. Bear this fact in mind when assigning the profile (see *Section 4.19 Encoder Profile, page 28*).

Number of destination IP address
Specify the numbers of the IP addresses to be contacted in the event of an alarm. The unit contacts the remote stations one after the other in the numbered sequence until a connection is made.

Destination IP address
For each number, enter the corresponding IP address for the desired remote station.

Destination password
If the remote station is password protected, enter the password here.
In this page, you can save a maximum of ten destination IP addresses and hence up to ten passwords for connecting to remote stations. If connections to more than ten remote stations are to be possible, for example when initiating connections via higher-ranking systems such as VIDOS or Bosch Video Management System, you can store a general password here. The AutoDome 700 Series can use this general password to connect to all remote stations protected with the same password. In this case, proceed as follows:
1.   Select **10** from the **Number of destination IP address** list field.
2.   Enter the address **0.0.0.0** in the **Destination IP address** field.
3.   Enter your chosen password in the **Destination password** field.
4.   Define this password as the **user** password for all remote stations to which a connection is to be possible.

> **NOTICE!**
> If you enter the destination IP address 0.0.0.0 for destination 10, this address will no longer be used for the tenth attempt at automatic connection in the event of an alarm. The parameter is then used only to save the general password.

Video transmission
If the unit is operated behind a firewall, **TCP (HTTP port)** should be selected as the transfer protocol. For use in a local network, select **UDP**.

CAUTION!
Please note that in some circumstances, a larger bandwidth must be available on the network for additional video images in the event of an alarm, in case Multicast operation is not possible. To enable Multicast operation, select the **UDP** option for the **Video transmission** parameter here and on the **Network** page (see *Page 52*).

Remote port
Depending on the network configuration, select a browser port here. The ports for HTTPS connections will be available only if the **On** option is selected in the **SSL encryption** parameter.

Video output
If you know which unit is being used as the receiver, you can select the analog video output to which the signal should be switched. If the destination unit is unknown, it is advisable to select the **First available** option. In this case, the image is placed on the first free video output. This is an output on which there is no signal. The connected monitor only displays images when an alarm is triggered. If you select a particular video output and a split image is set for this output on the receiver, you can also select from **Decoder** the decoder in the receiver that is to be used to display the alarm image.

NOTICE!
Refer to the destination unit documentation concerning image display options and available video outputs.

Decoder
Select a decoder of the receiver to display the alarm image. The decoder selected has an impact on the position of the image in a split screen. For example, you can specify via a VIP XD that the upper-right quadrant should be used to display the alarm image by selecting decoder 2.

SSL encryption
The data for the connection, for example the password, can be securely transmitted with SSL encryption. If you have selected the **On** option, only encrypted ports are offered in the **Remote port** parameter.

NOTICE!
Please note that the SSL encryption must be activated and configured at both ends of a connection. This requires the appropriate certificates to be uploaded onto the AutoDome 700 Series.

You can activate and configure encryption of the media data (video and metadata) on the **Encryption** page (see *Section 4.52 Encryption, page 58*).

Auto-connect
Select the **On** option to automatically re-establish a connection to one of the previously specified IP addresses after each reboot, after a connection breakdown or after a network failure.

NOTICE!
In the default setting, Stream 2 is transmitted for automatic connections. Bear this fact in mind when assigning the profile (see *Section 4.19 Encoder Profile, page 28*).

4.39 VCA

The AutoDome 700 Series contains an integrated video content analysis (VCA), which can detect and analyze changes in the signal on the basis of image processing. Such changes can be due to movements in the camera's field of view.

You can select various VCA configurations and adapt these to your application as required. The **Silent MOTION+** configuration is active by default. In this configuration, metadata is created to facilitate searches of recordings; however, no alarm is triggered.

1. Select a VCA configuration and make the required settings.
2. If necessary, click the **Default** button to return all settings to their default values.

VCA Profiles

You can configure two profiles with different VCA configurations. You can save profiles on your computer's hard drive and load saved profiles from there. This can be useful if you want to test a number of different configurations. Save a functioning configuration and test new settings. You can use the saved configuration to restore the original settings at any time.

> **NOTICE!**
> If computing power becomes short, the highest priority is always the live images and recordings. This can lead to impairment of the video content analysis. You should therefore observe the processor load and optimize the encoder settings or the video content analysis settings as necessary.

1. Select a VCA profile and enter the required settings.
2. If necessary, click the **Default** button to return all settings to their default values.
3. Click the **Save...** button to save the profile settings to another file. A new window is opened, in which you can specify where you want to save the file and what name you want to save it under.
4. Click the **Load...** button to load a saved profile. A new window opens in which you can select the profile file and specify where to save the file.

VCA configuration

Select one of the profiles here to activate it or edit it.
You can rename the profile.

1. To rename the file, click the icon to the right of the list field and enter the new profile name in the field.
2. Click the icon again. The new profile name is saved.

Alarm status

The alarm status is displayed here for information purposes. This means you can check the effects of your settings immediately.

Analysis type

Select the required analysis algorithm. By default, only **MOTION+** is available – this offers a motion detector and essential recognition of tampering.

> **NOTICE!**
> Additional analysis algorithms with comprehensive functions such as IVMD and IVA are available from Bosch Security Systems, inc.
> If you select one of these algorithms, you can set the corresponding parameters here directly. You can find information on this in the relevant documents on the product CD supplied.

Metadata is always created for a video content analysis, unless this was explicitly excluded. Depending on the analysis type selected and the relevant configuration, additional information overlays the video image in the preview window next to the parameter settings. With the **MOTION+** analysis type, for example, the sensor fields in which motion is recorded will be marked with rectangles.

> **NOTICE!**
> On the **LIVEPAGE Functions** page, you can also enable additional information overlays for the **LIVEPAGE** (see *Section 4.15 Livepage Functions, page 27*).

Motion detector (MOTION+ only)

For the detector to function, the following conditions must be met:
– Analysis must be activated.
– At least one sensor field must be activated.
– The individual parameters must be configured to suit the operating environment and the desired responses.
– The sensitivity must be set to a value greater than zero.

> **CAUTION!**
> Reflections of light (off glass surfaces, etc.), switching lights on or off or changes in the light level caused by cloud movement on a sunny day can trigger unintended responses from the motion detector and generate false alarms. Run a series of tests at different times of the day and night to ensure that the video sensor is operating as intended.
> For indoor surveillance, ensure constant lighting of the areas during the day and at night.

Sensitivity (MOTION+ only)

The basic sensitivity of the motion detector can be adjusted for the environmental conditions to which the camera is subject.
The sensor reacts to variations in the brightness of the video image. The darker the observation area, the higher the value that must be selected.

Minimum object size (MOTION+ only)

You can specify the number of sensor fields that a moving object must cover to generate an alarm. This is to prevent objects that are too small from triggering an alarm.
A minimum value of **4** is recommended. This value corresponds to four sensor fields.

Select Area (MOTION+ only)

The areas of the image to be monitored by the motion detector can be selected. The video image is subdivided into 858 square fields. Each of these fields can be activated or deactivated individually. If you wish to exclude particular regions of the camera's field of view from monitoring due to continuous movement (by a tree in the wind, etc.), the relevant fields can be deactivated.
1. Click **Select Area** to configure the sensor fields. A new window will open.
2. If necessary, click **Clear All** first to clear the current selection (fields marked yellow).
3. Left-click the fields to be activated. Activated fields are marked yellow.
4. If necessary, click **Select All** to select the entire video frame for monitoring.
5. Right-click any fields you wish to deactivate.
6. Click **OK** to save the configuration.
7. Click the close button **X** in the window title bar to close the window without saving the changes.

Tamper detection

You can reveal the tampering of cameras and video cables by means of various options. Run a series of tests at different times of the day and night to ensure that the video sensor is operating as intended.

> **NOTICE!**
> The options for tamper detection can only be set for fixed cameras. Dome cameras or other motorized cameras cannot be protected in this manner as the movement of the camera itself causes changes in the video image that are too great.

Sensitivity

> **NOTICE!**
> This and the following parameter are only accessible if the reference check is activated.

The basic sensitivity of the tamper detection can be adjusted for the environmental conditions to which the camera is subject.
The algorithm reacts to the differences between the reference image and the current video image. The darker the observation area, the higher the value that must be selected.

Trigger delay (s)

You can set delayed alarm triggering. The alarm is only triggered after a set time interval in seconds has elapsed and then only if the triggering condition still exists. If the original condition has been restored before this time interval elapses, the alarm is not triggered. This allows you to avoid false alarms triggered by short-term changes, for example cleaning activities in the direct field of vision of the camera.

Global change

You can set how large the global change in the video image must be for an alarm to be triggered. This setting is independent of the sensor fields selected under **Select Area**. Set a high value if fewer sensor fields need to change to trigger an alarm. With a low value, it is necessary for changes to occur simultaneously in a large number of sensor fields to trigger an alarm.
This option allows you to detect, independently of motion alarms, manipulation of the orientation or location of a camera resulting from turning the camera mount bracket, for instance.

Global change

Activate this function if the global change, as set with the **Global change** slide control, should trigger an alarm.

Scene too bright

Activate this function if tampering associated with exposure to extreme light (for instance, shining a flashlight directly on the lens) should trigger an alarm. The average brightness of the scene provides a basis for recognition.

Scene too dark

Activate this function if tampering associated with covering the lens (for instance, by spraying paint on it) should trigger an alarm. The average brightness of the scene provides a basis for recognition.

Scene too noisy

Activate this function if tampering associated with EMC interference (noisy scene as the result of a strong interference signal in the vicinity of the video lines), as an example, should trigger an alarm.

Select Area

You can select the image areas in the reference image that are to be monitored. The video image is subdivided into 858 square fields. Each of these fields can be activated or deactivated individually.

NOTICE!

Select only those areas for reference monitoring in which no movement takes place and that are always evenly lit, as false alarms could otherwise be triggered.

1. Click **Select Area** to configure the sensor fields. A new window will open.
2. If necessary, click **Clear All** first to clear the current selection (fields marked yellow).
3. Left-click the fields to be activated. Activated fields are marked yellow.
4. If necessary, click **Select All** to select the entire video frame for monitoring.
5. Right-click any fields you wish to deactivate.
6. Click **OK** to save the configuration.
7. Click the close button **X** in the window title bar to close the window without saving the changes.

4.40   Audio Alarm

The AutoDome 700 Series can create alarms on the basis of audio signals. You can configure signal strengths and frequency ranges in such a way that false alarms, for example due to machine noise or background noise, are avoided.

NOTICE!

First set up normal audio transmission before you configure the audio alarm here (see *Section 4.30 Audio, page 38*).

Audio alarm

Select **On** if you want the device to generate audio alarms.

Name

The name makes it easier to identify the alarm in extensive video monitoring systems, for example with the VIDOS and Bosch Video Management System programs. Enter a unique and clear name here.

CAUTION!

Do not use any special characters, for example **&**, in the name.

Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player programs being unable to play back the recording.

Threshold

Set up the threshold on the basis of the signal visible in the graphic. You can set the threshold using the slide control or, alternatively, you can move the white line directly in the graphic using the mouse.

Sensitivity

You can use this setting to adapt the sensitivity to the sound environment. You can effectively suppress individual signal peaks. A high value represents a high level of sensitivity.

Signal Ranges

You can exclude particular signal ranges in order to avoid false alarms. For this reason the total signal is divided into 13 tonal ranges (mel scale). Check or uncheck the boxes below the graphic to include or exclude individual ranges.

4.41   Alarm E-Mail

As an alternative to automatic connecting, alarm states can also be documented by e-mail. In this way it is possible to notify a recipient who does not have a video receiver. In this case, the AutoDome 700 Series automatically sends an e-mail to a previously defined e-mail address.

Send alarm e-mail

Select **On** if you want the unit to automatically send an alarm e-mail in the event of an alarm.

Mail server IP address

Enter the IP address of a mail server that operates on the SMTP standard (Simple Mail Transfer Protocol). Outgoing e-mails are sent to the mail server via the address you entered. Otherwise leave the box blank (**0.0.0.0**).

SMTP user name

Enter a registered user name for the chosen mailserver here.

SMTP password

Enter the required password for the registered user name here.

Format

You can select the data format of the alarm message.
–   **Standard (with JPEG)**
     E-mail with attached JPEG image file.
–   **SMS**
     E-mail in SMS format to an e-mail-to-SMS gateway (for example to send an alarm by cellphone) without an image attachment.

CAUTION!

When a cellphone is used as the receiver, make sure to activate the e-mail or SMS function, depending on the format, so that these messages can be received.

You can obtain information on operating your cellphone from your cellphone provider.

Attach JPEG from camera

Click the checkbox to specify that JPEG images are sent from the camera. An enabled video input is indicated by a check mark.

Destination address

Enter the e-mail address for alarm e-mails here. The maximum address length is 49 characters.

Sender name

Enter a unique name for the e-mail sender, for example the location of the unit. This will make it easier to identify the origin of the e-mail.

Test e-mail

You can test the e-mail function by clicking the **Send Now** button. An alarm e-mail is immediately created and sent.

4.42   Alarm Task Editor

CAUTION!

Editing scripts on this page overwrites all settings and entries on the other alarm pages. This procedure cannot be reversed.

In order to edit this page, you must have programming knowledge and be familiar with the information in the **Alarm Task Script Language** document.

As an alternative to the alarm settings on the various alarm pages, you can enter your desired alarm functions in script form here. This will overwrite all settings and entries on the other alarm pages.

1.   Click the **Examples** link under the **Alarm Task Editor** field to see some script examples. A new window will open.
2.   Enter new scripts in the **Alarm Task Editor** field or change existing scripts in line with your requirements.
3.   When you are finished, click the **Set** button to transmit the scripts to the unit. If the transfer was successful, the message **Script successfully parsed** is displayed over the text field. If it was not successful, an error message will be displayed with further information.

4.43   Alarm Rules

The AutoDome 700 Series features an alarm rule engine. In its simplest form, an alarm rule can define which input(s) activate which output(s). Basically, an alarm rule allows you to customize an AutoDome 700 Series to automatically respond to different alarm inputs.
To configure an alarm rule specify one input from either a physical connection, a motion detection trigger, or from a connection to the camera's Livepage. The physical input connection can be activated by dry contact devices such as pressure pads, door contacts and similar devices
Next, specify up to two (2) rule outputs, or the camera's response to the input. Outputs include a physical alarm relay, an AUX command, or a preposition scene.

1.   Click the Enabled check box to activate the alarm.
2.   Choose one of the following alarm inputs:
     –   Local Input 1: a physical alarm connection.
     –   Local Input 2: a physical alarm connection.
     –   IVA/MOTION+: an alarm when IVA or motion detection is activated.
     –   Connection: an alarm when an attempt is made to access the camera's IP address.
3.   Choose one of the following output commands for both Output 1 and Output 2 settings:
     –   None: no defined command.
     –   Alarm Relay: defines a physical connection from the open collector alarm output.
     –   Aux On: defines a standard or custom keyboard ON command.
         Refer to *Section 6 User Command Table, page 64*, for a list of valid commands.
         Note: Only commands 1, 8, 18, 20, 43, 60, 80, 86 are supported. Support for the remaining commands is scheduled for a future release.
     –   Aux Off: defines a standard or custom keyboard OFF command.
         Refer to *Section 6 User Command Table, page 64*, for a list of valid commands.
         Note: Only commands 1, 8, 18, 20, 43, 60, 80, 86 are supported. Support for the remaining commands is scheduled for a future release.
     –   Shot: defines a preset scene from shot 1-99.
4.   Click Set to save and to activate the alarm rules.

4.44 Advanced Mode: Interfaces

4.45 Alarm Inputs

Select the type of input for each physical alarm. Select from either **N.O.** (Normally Open) or **N.C.** (Normally Closed) and provide an optional name for each input.

4.46 Relay

The AutoDome 700 Series incorporates one (1) open collector alarm output. Use the following settings to configure the relay.

Idle State
Specify either **Open** or **Closed** idle state.

Operations Mode
Select one of the following modes for operation: Bistable, 0.5 s, 1 s, 5 s, 10 s, or 60 s.

Relay Follows
Select one of the following actions that the AutoDome performs after the relay is triggered:
– Off
– Connection
– Video Alarm 1
– Motion Alarm 1
– Local Input 1
– Remote Input 1

Relay Name
Type an optional name for the relay connection, up to 20 characters.

Trigger Relay
Click the **Relay 1** button to test the relay connection.

4.47 Advanced Mode: Network

4.48 Network Access

The settings on this page are used to integrate the AutoDome 700 Series into an existing network.
Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.
1. Make the desired changes.
2. Click the **Set and Reboot** button. The AutoDome 700 Series is rebooted and the changed settings are activated.

CAUTION!
If you change the IP address, subnet mask or gateway address, the AutoDome 700 Series is only available under the new addresses after the reboot.

Automatic IP assignment

If a DHCP server is employed in the network for the dynamic assignment of IP addresses, you can activate acceptance of IP addresses automatically assigned to the AutoDome 700 Series. Certain applications (VIDOS, Bosch Video Management System, Archive Player, Configuration Manager) use the IP address for the unique assignment of the unit. If you use these applications, the DHCP server must support the fixed assignment between IP address and MAC address, and must be appropriately set up so that, once an IP address is assigned, it is retained each time the system is rebooted.

IP address

Enter the desired IP address for the AutoDome 700 Series in this field. The IP address must be valid for the network.

Subnet mask

Enter the appropriate subnet mask for the selected IP address here.

Gateway address

If you want the unit to establish a connection to a remote location in a different subnet, enter the IP address of the gateway here. Otherwise leave the box blank (**0.0.0.0**).

DNS server address

The AutoDome 700 Series is easier to access if the unit is listed on a DNS server. If you wish, for example, to establish an Internet connection to the AutoDome 700 Series, it is sufficient to enter the name given to the unit on the DNS server as a URL in the browser. Enter the IP address of the DNS server here. Servers are supported for secure and dynamic DNS.

Video Transmission

If the unit is operated behind a firewall, **TCP (HTTP port)** should be selected as the transfer protocol. For use in a local network, select **UDP**.

> **CAUTION!**
> Multicast operation is only possible with the UDP protocol. The TCP protocol does not support multicast connections.
> The MTU value in UDP mode is 1,514 bytes.

HTTP browser port

Select a different HTTP browser port from the list if required. The default HTTP port is 80. If you want to allow only secure connections via HTTPS, you must deactivate the HTTP port. In this case, select **Off**.

HTTPS browser port

If you wish to allow browser access on the network via a secure connection, select an HTTPS browser port from the list if necessary. The default HTTPS port is 443. Select the **Off** option to deactivate HTTPS ports; only unsecured connections will now be possible.

The AutoDome 700 Series uses the TLS 1.0 encryption protocol. You may have to activate this protocol via your browser configuration. You must also activate the protocol for the Java applications (via the Java control panel in the Windows control panel).

> **NOTICE!**
> If you want to allow only secure connections with SSL encryption, you must select the **Off** option for each of the parameters **HTTP browser port**, **RCP+ port 1756** and **Telnet support**. This deactivates all unsecured connections. Connections will then only be possible via the HTTPS port.

You can activate and configure encryption of the media data (video and metadata) on the **Encryption** page (see *Section 4.52 Encryption, page 58*).

RCP+ port 1756
To exchange connection data, you can activate the unsecured RCP+ port 1756. If you want connection data to be transmitted only when encrypted, select the **Off** option to deactivate the port.

Telnet support
If you want to allow only secure connections with encrypted data transmission, you must select the **Off** option to deactivate Telnet support. The unit will then no longer be accessible using the Telnet protocol.

Interface mode ETH
If necessary, select the Ethernet link type for the **ETH** interface. Depending on the unit connected, it may be necessary to select a special operation type.

Network MSS (Byte)
You can set the maximum segment size for the IP packet's user data. This gives you the option to adjust the size of the data packets to the network environment and to optimize data transmission. Please comply with the MTU value of 1,514 bytes in UDP mode.

iSCSI MSS (Byte)
You can specify a higher MSS value for a connection to the iSCSI system than for the other data traffic via the network. The potential value depends on the network structure. A higher value is only useful if the iSCSI system is located in the same subnet as the AutoDome 700 Series.

Enable DynDNS
DynDNS.org is a DNS hosting service that stores IP addresses in a database ready for use. It allows you to select the AutoDome 700 Series via the Internet using a host name, without having to know the current IP address of the unit. You can enable this service here. To do this, you must have an account with DynDNS.org and you must have registered the required host name for the unit on that site.

> **NOTICE!**
> Information about the service, registration process and available host names can be found at DynDNS.org.

Host name
Enter the host name registered on DynDNS.org for the AutoDome 700 Series here.

User name
Enter the user name you registered at DynDNS.org here.

Password
Enter the password you registered at DynDNS.org here.

Force registration now
You can force the registration by transferring the IP address to the DynDNS server. Entries that change frequently are not provided in the Domain Name System. It is a good idea to force the registration when you are setting up the device for the first time. Only use this function when necessary and no more than once a day, to avoid the possibility of being blocked by the service provider. To transfer the IP address of the AutoDome 700 Series, click the **Register** button.

Status

The status of the DynDNS function is displayed here for information purposes. You cannot change any of these settings.

4.49 Advanced

The settings on this page are used to implement advanced settings for the network.

Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.

1. Make the desired changes.
2. Click the **Set and Reboot** button. The AutoDome 700 Series is rebooted and the changed settings are activated.

SNMP

The AutoDome 700 Series supports the SNMP V2 (Simple Network Management Protocol) for managing and monitoring network components, and can send SNMP messages (traps) to IP addresses. The unit supports SNMP MIB II in the unified code. If you wish to send SNMP traps, enter the IP addresses of one or two required target devices here.

If you select **On** for the **SNMP** parameter and do not enter an SNMP host address, the AutoDome 700 Series does not send them automatically, but only replies to SNMP requests. If you enter one or two SNMP host addresses, SNMP traps are sent automatically. Select **Off** to deactivate the SNMP function.

1. SNMP host address / 2. SNMP host address

If you wish to send SNMP traps automatically, enter the IP addresses of one or two required target units here.

SNMP traps

You can select which traps are to be sent.

1. Click **Select**. A list is opened.
2. Click the checkboxes to select the required traps. All the checked traps will be sent.
3. Click **Set** to accept the selection.

Authentication

If a RADIUS server is employed in the network for managing access rights, authentication must be activated here to allow communication with the unit. The RADIUS server must also contain the corresponding data.

To configure the unit, you must connect the AutoDome 700 Series directly to a computer using a network cable. This is because communication via the network is not enabled until the **Identity** and **Password** parameters have been set and successfully authenticated.

Identity

Enter the name that the RADIUS server is to use for identifying the AutoDome 700 Series.

Password

Enter the password that is stored in the RADIUS server.

RTSP port

If necessary, select a different port for the exchange of the RTSP data from the list. The standard RTSP port is 554. Select **Off** to deactivate the RTSP function.

NTCIP

Specifies a set of rules and protocols for organizing, describing and exchanging transportation management information between transportation management applications and transportation equipment such that they interoperate with each other.
Select a port for **NTCIP** and the **Address** from the appropriate drop-down lists.

UPnP

A set of networking protocols that permits networked devices to seamlessly discover each other's presence on the network and establish functional network services for data sharing and communications. Select **On** to enable this protocol.

TCP Metadata Port

Select a port and type a IP address for the sender.

4.50   Multicast

In addition to a 1:1 connection between an encoder and a single receiver (unicast), the AutoDome 700 Series can enable multiple receivers to receive the video signal from an encoder simultaneously. The device either duplicates the data stream itself and then distributes it to multiple receivers (Multi-unicast) or it sends a single data stream to the network, where the data stream is simultaneously distributed to multiple receivers in a defined group (Multicast). You can enter a dedicated multicast address and port for each stream. You can switch between the streams by clicking the appropriate tabs.

> **NOTICE!**
> Multicast operation requires a multicast-enabled network that uses the UDP and the Internet Group Management IGMP protocols. Other group management protocols are not supported. The TCP protocol does not support multicast connections.

A special IP address (class D address) must be configured for multicast operation in a multicast-enabled network.
The network must support group IP addresses and the Internet Group Management Protocol (IGMP V2). The address range is from 225.0.0.0 to 239.255.255.255.
The multicast address can be the same for multiple streams. However, it will be necessary to use a different port in each case so that multiple data streams are not sent simultaneously using the same port and multicast address.

> **NOTICE!**
> The settings must be made individually for each stream.

Enable

To enable simultaneous data reception on several receivers you need to activate the multicast function. To do this, check the box. You can then enter the multicast address.

Multicast Address

Enter a valid multicast address for each stream to be operated in multicast mode (duplication of the data streams in the network).
With the setting **0.0.0.0** the encoder for the relevant stream operates in multi-unicast mode (copying of data streams in the unit). The AutoDome 700 Series supports multi-unicast connections for up to five simultaneously connected receivers.

> **NOTICE!**
> Duplication of data places a heavy demand on the unit and can lead to impairment of the image quality under certain circumstances.

Port
Assign a different port to each data stream if there are simultaneous data streams at the same multicast address.
Enter the port address of the required stream here.

Streaming
Click the checkbox to activate multicast streaming mode for the relevant stream. An enabled stream is indicated by a check mark.

Multicast packet TTL
You can enter a value to specify how long the multicast data packets are active on the network. This value must be greater than one if multicast is to be run via a router.

4.51   FTP Posting

You can save individual JPEG images on an FTP server at specific intervals. You can then retrieve these images at a later date to reconstruct alarm events if required.

File name
You can select how file names will be created for the individual images that are transmitted.
–   **Overwrite**
    The same file name is always used and any existing file will be overwritten with the current file.
–   **Increment**
    A number from 000 to 255 is added to the file name and automatically incremented by 1. When it reaches 255 it starts again from 000.
–   **Date/time suffix**
    The date and time are automatically added to the file name. When setting this parameter, ensure that the unit's date and time are always correctly set. Example: the file snap011005_114530.jpg was stored on October 1, 2005 at 11:45 and 30 seconds.

Posting interval
Enter the interval in seconds at which the images will be sent to an FTP server. Enter zero if you do not want any images to be sent.

FTP server IP address
Enter the IP address of the FTP server on which you wish to save the JPEG images.

FTP server login
Enter your login name for the FTP server.

FTP server password
Enter the password that gives you access to the FTP server.

Path on FTP server
Enter the exact path on which you wish to post the images on the FTP server.

Max. Bit Rate
Enter the maximum bit rate for the JPEG images.

4.52   Encryption

A special license, with which you will receive a corresponding activation key, is required to encrypt user data. You can enter the activation key to release the function on the **Licenses** page (see *Section 4.55 Licenses, page 59*).

4.53   Advanced Mode: Service

4.54   Maintenance

Firmware

The AutoDome 700 Series is designed in such a way that its functions and parameters can be updated with firmware. To do this, transfer the current firmware package to the unit via the selected network. It will then be automatically installed there.

In this way, an AutoDome 700 Series can be serviced and updated remotely without a technician having to change the installation on site.

CAUTION!

Before launching the firmware upload make sure that you have selected the correct upload file. Uploading the wrong files can result in the unit no longer being addressable, in which case you must replace the unit.

You should never interrupt the installation of firmware. An interruption can lead to the flash-EPROM being incorrectly programmed. This in turn can result in the unit no longer being addressable, in which case it will have to be replaced. Even changing to another page or closing the browser window leads to an interruption.

Configuration

You can save configuration data for the AutoDome 700 Series on a computer and then load saved configuration data from a computer to the unit.

Upload

1. Enter the full path of the file to upload or click **Browse** to select the required file.
2. Make certain that the file to be loaded comes from the same unit type as the unit you want to configure.
3. Next, click **Upload** to begin transferring the file to the unit. The progress bar allows you to monitor the transfer.

Once the upload is complete, the new configuration is activated. The time remaining is shown by the message **going to reset Reconnecting in ... seconds**. The unit reboots automatically once the upload has successfully completed.

Download

1. Click the **Download** button. A dialog box opens.
2. Follow the on-screen instructions to save the current settings.

SSL certificate

To be able to work with an SSL encrypted data connection, both ends of a connection must hold the relevant certificates. You can upload the SSL certificate, comprising one or multiple files, onto the AutoDome 700 Series.

If you wish to upload multiple files onto the AutoDome 700 Series, you must select them consecutively.

1. Enter the full path of the file to upload or click **Browse** to select the required file.
2. Next, click **Upload** to begin transferring the file to the unit.
3. Once all files have been successfully uploaded, the unit must be rebooted. In the address bar of your browser, enter **/reset** after the IP address of the AutoDome 700 Series (for example **192.168.0.10/reset**).

The new SSL certificate is valid.

Maintenance log

You can download an internal maintenance log from the unit to send it to Customer Service for support purposes. Click **Download** and select a storage location for the file.

4.55   Licenses

You can enter the activation key to release additional functions or software modules.

> **NOTICE!**
> The activation key cannot be deactivated again and is not transferable to other units.

4.56   System Overview

The data on this page are for information purposes only and cannot be changed. Keep a record of this information in case technical assistance is required.

> **NOTICE!**
> You can select all required text on this page with the mouse and copy it to the clipboard with the [Ctrl]+[C] key combination, for example if you want to send it via e-mail.

5   Troubleshooting Guide

5.1   VG5 AutoDome Operation and Control

Problem	Solution
No video	– Check that the Green LED on the AutoDome CPU board is on. This LED indicates video from the camera. **If the Green LED is off, then:** – Check that the Red LED on the AutoDome CPU board is slowly blinking. This LED indicates power to the AutoDome power supply board and to the CPU Module. **Red LED on AutoDome CPU M0.odule** **Flash SequenceIndicates:** – 5 sec. on / 0.5 sec. off: Normal operation – Steady on: CPU is locked **If the Red LED is on steady, then:** – Try cycling the AutoDome power off and on. **If the Red LED is off, then:** **If using a Bosch Pendant Power Supply Box:** – Check that Green LED in Power Supply Box is on. This LED indicates mains power through the transformer. **If the Green LED is off, then:** – Turn off the Power. – Check the FX101 fuse for mains power to the Power Supply Box. **If O.K., then:** – Check the FX102 fuse for 24 V power to the AutoDome Pendant. **If O.K., then:** **If using a non-Bosch power supply:** – Check that the mains power to the power supply box is on. **If O.K., then:** – Check that there is 24 V output from the transformer. – Check the connector on top of the AutoDome housing for bent pins. **If O.K., then:** – Check the integrity of all wires and terminal connections to the AutoDome. **If O.K., then:** **If there is power to the AutoDome, then:** – Remove the camera and CPU modules from the AutoDome housing and check that the Green LED on the housing power supply board is on. **If the Green LED is off, then:** – Check that the fuse on the housing power supply board is good.

5.2 VG5 700 Series AutoDome Video and Control

Problem	Solution

No Network Connection	– Check all network connections
	
	    – Ensure that the maximum distance between any two Ethernet connections is 100 m (328 ft) or less.
	
	    Refer to the *VG5 AutoDome Installation Manual* for more information.
	
	If O.K., then:
	– If you are behind a firewall, ensure that the Video Transmission mode is set to UDP.
	
	    a. Access the Settings Web page for the IP-enabled device.
	    b. Expand the Service Settings link, then click Network.
	    c. Select UDP from the Video Transmission drop-down list. Then click Set.

5.3 VG5 Series AutoDome Audio

The following diagram illustrates the path for audio transmissions between a microphone/AutoDome and a computer that plays the audio.

Audio Connections with VG5 700 Series AutoDome

The VG5 700 Series AutoDome uses an Ethernet connection to connect directly to an existing network.
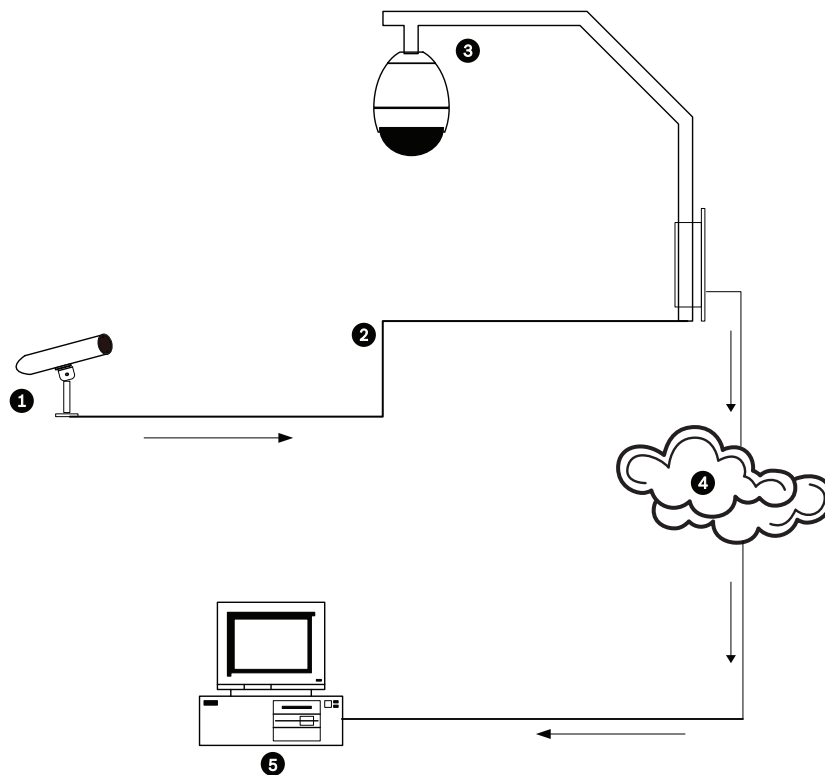
Figure 5.1 Typical Audio Connections for an IP-enabled AutoDome

1	Microphone
2	Coaxial Cable–10 m (33 ft) maximum distance
3	VG5 700 Series AutoDome
4	Ethernet Network
5	Computer with Bosch DiBos Software

Problem	Solution
No Audio	– Check the computer receiving the audio from the VG5 AutoDome or from the IP Encoder. 　– Check the computer's audio settings. Ensure that the sound levels are at an audible level. 　– Check the computer's audio output card and speakers. Play a secondary source of audio on the computer. If you still do not hear audio replace the speakers and try again.
	If O.K., then: – Ensure that the Audio option is enabled for the IP device. 　a. Access the Settings Web page for the IP-enabled device. 　b. Expand the Encoder Settings link, then click Audio Settings. 　c. Ensure that On is selected from the Enable Audio drop-down list. Then, click Set.
	If O.K., then: – Check the microphone. Connect appropriate speakers directly to the microphone at the camera site and confirm that the audio is clear and audible at the location. An audio problem or noise at the source will further degrade as it travels through all the cables and connections.
	If O.K., then: – Verify the cable type and installation used for audio connections between the microphone and the VG5 AutoDome. 　– Cable type: Coaxial 　– Cable length: 10 m (33 ft), maximum 　　Refer to the *VG5 AutoDome Installation Manual* for more information.

Problem	Solution
	If O.K., then: – Check all network connections. – If the video is clear and contains no distortion, then the network connections are probably not the source of audio problems. – Ensure that the maximum distance between any two Ethernet connections is 100 m (328 ft). Refer to the *VG5 AutoDome Installation Manual* for more information.
Poor Audio	– Check the computer receiving the audio from the VG5 AutoDome or from the IP Decoder. – Check the computer's audio output card and speakers. Play a secondary source of audio on the computer, if you hear static then replace the speakers and try again. – Check the computer's audio output card and speakers. Play a secondary source of audio on the computer. If you still do not hear audio replace the speakers and try again. **If O.K., then:** – Check the Gain settings and the peak gain value. a. Access the Settings Web page for the IP-enabled device. b. Expand the Encoder Settings link, then click Audio Settings. c. Adjust the Gain level so that the peak value stays within the green area. Refer to the *VG5 AutoDome Installation Manual* for complete information. **If O.K., then:** – Check the location of the microphone and the audio cables. – Line level audio is typically between 700 mV and 2 V so it may be affected by AC power or transmission sources. – Ensure that there is a maximum (at least 1 foot per 100 VAC) distance between the microphone and audio cables and the AC source. **If O.K., then:** – Verify the cable type and installation used for audio connections between the microphone and the VG5 AutoDome. – Cable type: Coaxial – Cable length: 10 m (33 ft), maximum Refer to the *VG5 AutoDome Installation Manual* for more information.

6   User Command Table

Locked	Alarm Rule Output	Function Key	Comm No.	Command	Description
	Y	On/Off	1	Scan 360°	Autopan without limits
	Y	On/Off	8	Play Pre-position Tour	Activate/Deactivate
Y	Y	On/Off	18	AutoPivot Enable	Enables/disables AutoPivot
	Y	On/Off	20	Backlight Comp	Backlight Compensation
	Y	On/Off	24	Stabilization	Electronic Stabilization
Y		On/Off	40	Restore Camera Settings	Restores all setting to their original defaults
Y	Y	On/Off	43	Auto Gain Control	AGC–On, Auto, Off
	Y	On/Off	57	Night Mode setting	Enables/Disables Night Mode (Day/Night only)
Y	Y	On/Off	60	On Screen Display	On–enable Off–disable
Y	Y	On/Off	80	Digital Zoom Lock	Turns digital zoom on and off
Y	Y	On/Off	86	Sector Blanking	On–enable Off–disable
Y	Y	On/Off	87	Privacy Masking	On–enable Off–disable
	Y	On/Off	90	Command Lock/Unlock	On–lock on Off–lock off
Y		On/Off	94	Set Azimuth Zero Point	Sets the zero degree pan position.
		On/Off	95	Display Azimuth/Elevation Readings	On–Displays azimuth/elevation readings Off–Hides azimuth/elevation readings
		On/Off	96	Display Compass Heading	On–Displays compass heading Off–Hides compass heading

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Symbols